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GEORGE B. KELEZ

DEPARTMENT OF THE INTERIOR

REPORT

OF THE

GOVERNOR OF ALASKA

TO THE

SECRETARY OF THE INTERIOR

1920

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George B. Kelez

WASHINGTON
GOVERNMENT PRINTING OFFICE
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1920

TERRITORY OF ALASKA, OFFICE OF GOVERNOR,
JUNEAU, *September 26, 1920.*

SIR: I have the honor to transmit herewith my annual report of conditions affecting the Territory for the fiscal year ended June 30, 1920, together with appendixes.

Respectfully,

THOMAS RIGGS, Jr.,
Governor.

Hon. JOHN BARTON PAYNE,
Secretary of the Interior, Washington, D. C.

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ILLUSTRATION.

Map of Alaska At end.

REPORT OF THE GOVERNOR.

In my report for the fiscal year ended June 30, 1919, I made certain recommendations for new legislation affecting the welfare of Alaska. It is most gratifying to note that of the 25 principal recommendations made, 8 have been favorably acted on in full or in part. Of the remaining 17, I trust that at least the most important will receive congressional attention during the coming session.

There have been honest attempts to open up Alaska by the Government, principally in the construction of the Government railroad from Seward, on Resurrection Bay, to Fairbanks, on the Tanana River, but in the meanwhile little attention has been paid to the proper development of the great natural resources. The fisheries with their annual output of approximately $50,000,000 have been subjected to overfishing until the industry faces exhaustion; the national forest regulations, while becoming yearly more enlightened, still contain provisions which capitalists view askance when asked to make heavy investments in pulp and paper factories; the coal and oil leasing laws are not entirely satisfactory, although a step in the right direction. The Government has honestly endeavored to give relief, but in its endeavor to protect the interests of the Government and of posterity, has pursued an uncoordinated policy hardly fitted to a sparcely settled pioneer country. Of what avail is it to the Government to construct a railroad through the heart of the country if all industry is not made attractive and the farmer is not encouraged by the application of laws and practices obtaining in the States?

We could well take example from British Columbia, which seeks to encourage the pioneer investment of capital. In Canada the founder of a great new industry gets knighted; in Alaska, very often, indicted. Is it any wonder then that capital, supposedly headed for Alaska, has been switched to British Columbia to that Province's gain and Alaska's loss?

We have at present no colonial policy such as has been evolved by our British neighbor. The pessimistically inclined can not understand why population is not rapidly increasing and take this as an evidence of industrial decay. Nothing is further from the truth. Industry, where established, is progressing, but the many Federal prohibitions, probably enacted for the benefit of an ideal conservation, do not make for conservation, except as they are prohibitive. Sentimentalists have done and are doing more damage to Alaska than can ever be undone unless a broad policy of development is undertaken which recognizes the rights of invested capital and the welfare of the individual. Laws should govern instead of revocable regulations, but where there must be regulations, such regulations should be promulgated by authority located within the Territory

and not 4,000 miles away. In the interest of good citizenship, to promote self-reliance, and to strengthen the desire for public welfare, the greatest possible meed of self-government should be allowed to the residents of the Territory. Under the law, the Government regulates, protects, and conserves, but in reality it performs few of these functions, and prevents Territorial action. Should the Alaska development board bill, H. R. 12870, introduced into the House of Representatives by the chairman of the Committee on Territories, become a law, several of the recommendations contained herein will automatically be disposed of. This bill has a fair chance of being enacted, as both the great political parties recognize the benefit to be derived from the measure. It will, however, probably receive a great deal of bureau opposition. Many bureau chiefs I have talked with seem to approve of the measure as applied to all other bureaus excepting their own. The desire to perpetuate bureaucratic power seems to be inherent.

There is danger that when the development board becomes established it may possibly endeavor to become the law-making and law-enforcing body of the Territory in perpetuity. Its true aim should be to turn over to Territorial control, as soon as it consistently can, all possible authority in all matters not purely of Federal concern. A good citizenry can only be developed through the placing of responsibility on the individual. An elected State or Territorial legislature may make mistakes, and often does, but the public mind is normally sane and holds its elected law-making body more quickly responsible to the interest of good local government than it can the Congress of the United States, so deeply concerned with matters of great national importance.

Besides the development board bill there will, however, be a number of measures which should still be considered. I think I am not unreasonable in any of my requests and should Congress, in its wisdom, see fit to pass legislation in accordance therewith I can safely promise that appropriations for Alaska can be cut below similar amounts appropriated for any State, and that the Territory, instead of simply being the greatest per capita contributor to the national revenues will, in addition, soon become self-supporting and self-sustaining. In brief, my recommendations will provide chiefly for permission to utilize the natural resources of Alaska and for Territorial participation therein.

In my previous report I made the statement that Alaska paid taxes which, if paid in proportion per capita by the whole of the United States, would have resulted in a national revenue of between five and six billions of dollars. I wish to correct this statement. If the collections by the Government from the people, industries, and resources of the United States equaled per capita similar collections from Alaska then the yearly national revenue would exceed $20,000,000,000. And yet legislation for Alaska is difficult to obtain. It is true our actual cash contribution is relatively small, but taking into consideration the income taxes paid by foreign and domestic corporations for business done in Alaska, as well as direct taxes and other revenues, the Government receives an amount annually which is far over and above all appropriations made for the Territory, including the amounts appropriated for the construction of the Government railroad extending from Seward to Fairbanks. For instance, the

Government's profits from the seal islands alone, for furs, either sold or on hand, exceed all appropriations of any kind whatsoever, except for railroad construction made for Alaska, and in these profits the Territory participates not at all, not even for the protection of the fisheries. The military telegraph and cable system is self-supporting, but new stations, which would also be self-supporting, can seldom be obtained. Alaska is not allowed to participate in the public roads cooperative act as are the States, although every mile of road construction will open up a new and taxable industry. The natives of Alaska were allowed to die during the influenza epidemic without relief from the Government while the Indians of the States are reported to be nursed along through any ailment. In the great influenza epidemic of 1918 in certain districts the native wards of the Government would have been exterminated had it not been for aid extended from the slender treasury of the Territory. An appropriation was asked from Congress and refused, although at the same session there was appropriated $100,000,000 for the relief of European sufferers.

Before many years a division of Alaska into two Territories must be considered. Its vast expanse, with the greatly differing conditions of climate and industry, makes the task of administration one of increasing difficulty. Each section of Alaska is capable of great development and each section should have laws to fit that particular locality. General laws are as inapplicable to Alaska as general laws would be to Idaho and Florida. The Federal and Territorial officials should be in direct touch with every part of their jurisdiction. At present this is impossible, due to the vast extent of the country and the difficulties of transportation and communication.

The awakening interest, congressional and departmental, in the future of this country was noted with gratification by me during my stay at the National Capital. I believe that had not Congress been engaged on matters of greater national import, Alaska would have received careful thought and intelligent assistance. We who live here recognize the potential greatness of Alaska, but it is not always possible to create this impression in the minds of executives and legislators who, from the nature of their duties, are unable to devote requisite study to Territorial conditions.

In the House of Representatives we are represented by a Delegate, but in the Senate we must depend upon the help of Senators from the western tier of States. We should be represented in the Senate as well as in the House, so that legislation instituted in one body may receive sympathetic support in the other.

The question of transportation is serious. We are now faced with the probability of further increases in freight and passenger tariffs. Already the burden weighs heavily upon all dependent upon the common carriers for service. I see no relief excepting through a subsidy—hated as the word may be—in one way or another. Increased freight costs can ill be borne. Increased costs will decrease the volume of business, necessitating further increases in tariff until industry is badly crippled.

I have, in the main, so far presented the critical and gloomy side. Fortunately there are two sides. We have a population not easily discouraged, and now that Congress can turn its attention away from

war emergencies, remedial legislation will be forthcoming. We are at last receiving recognition from the people and the press of the country who are recovering from the fanaticism of extreme conservation. Exports from the Territory, other than fish products, are increasing. Hope is renewed in mining development and in the possible establishment of wood-pulp industries; new lode gold and silver discoveries bid fair to reestablish mining on a permanent and not seasonal basis; water power may now be leased and utilized; reindeer herding is becoming an economic factor; farming has developed to the extent of making the Territory largely self-supporting. Even flour is being milled in the Tanana Valley and the scientific bureaus of the Government, where their functions are advisory and constructive and not regulatory, are rendering sane and wholesome service. Alaska has a great future. It contains every element necessary to success, and all that is needed is to allow and encourage progress.

POPULATION.

The taking of the census of 1920 was delegated to the personnel in Alaska of the bureau of education as their forces are most closely in touch with all parts of the Territory. In certain places additional census enumerators were employed. The time of taking the census was placed in January, the period when the population is at the lowest ebb.

At this time the returns are not entirely complete, as many far out-of-the-way districts are still to be heard from. However, all the principal towns are enumerated, and practically all of the larger industrial centers.

From reports made public I judge the total population to be in the neighborhood of 50,000, of which 30,000 are whites and 20,000 are natives of full or mixed blood. Preliminary estimates of the bureau of education place the white population at 35,000 and natives at 30,000, which I believe are excessive. Customs statistics show during the years 1912, 1914–15, 1916–1919 an excess of arrivals over departures of 10,982 persons. An excess of departures over arrivals is shown for the years 1911–1913, 1917–18 of 14,769. A net loss of 3,787 in arrivals since the census of 1910. The loss does not include those taken from the Territory in transports during the war or on small craft. The year 1919 shows a net gain in arrivals of 131. During the first six months of 1920 there were 13,681 arrivals and 4,831 departures. This latter, however, does not give much information, as the greater number of arrivals were cannery workers who depart at the close of the fishing season.

Since 1913 the bureau of vital statistics records 3,393 births as against 2,922 deaths. Again this is misleading, as few deaths during the influenza epidemics seem to have been reported in a proper manner. Of nearly 2,000 natives reported through various sources to have died in 1918 the various commissioners have only reported 99 for that year.

While the communities are in general widely scattered still nearly three-quarters of the white population is found along the coast from Portland Canal to Cook Inlet. This is a good index of the effect of transportation on population. As transportation facilities increase people will migrate to the at present inaccessible places.

OFFICIAL VISITORS.

During the summer Alaska was honored by the visit of the Secretary of the Navy and the Secretary of the Interior. The journey from Seattle was made with the destroyer flotilla under the direct command of the commander in chief of the Pacific Fleet. Short stops were made at Ketchikan and Juneau. The Secretaries were accompanied by the governor. At Seward the party transferred to a special train on the Government railroad and inspected the railroad to the end of steel on the Anchorage division and to the coal mines in the Matanuska coal fields, formerly operated by the Alaskan Engineering Commission but now by the naval coal commission. At Ketchikan and Anchorage conferences were held with the local commercial bodies. The visit of these two Cabinet members will result in much good to the Territory.

Other visitors of note include the Director of the Coast and Geodetic Survey, the Chief of the United States Bureau of Biological Survey, the Forester of the United States Forest Service, the Commissioner of International Boundary Surveys, and the commanding general of the Western Department of the Army.

Such visits are always most helpful to the Territory, as conditions can be studied on the ground and remedial action taken in many cases.

COMMERCE.

In previous reports of the governor the commerce of Alaska has been reckoned by fiscal years. To conform with the report of the collector of customs and to make a more ready comparison with his full report this previous practice is discontinued.

The total commerce of Alaska for the calendar year 1919 was $109,652,339, a decrease of $17,496,793. The total commerce with the United States was $106,586,095, as against $124,436,491 in 1919, a decrease of $17,850,396. The principal decreases and increases over 1919 are in the values of the exports of canned salmon, in which there was a decrease of $6,843,915; in fresh fish other than salmon, a decrease of $374,320; and in canned herring, an increase of $566,380. There was a noticeable increase in the value of clams, shrimps, fish fertilizer, etc. A run of salmon smaller than the average is the cause for the decreased value of the pack.

The value of the output of gold and silver dropped from $8,997,655 in 1918 to $8,636,139 in 1919, a decrease of $361,516; copper exports dropped from $18,156,051 to $10,304,807, a decrease of $7,851,244. A slump in the copper market not only caused a curtailment of production but affected the value of the ore shipped. The decrease in imports amounted to $2,668,305, due largely to reduced mining and fishery operations.

During the three months of April, May, and June, 1920, conditions improved to a certain extent over 1919 and show a small but healthy increase in exports from the Territory to the United States, the total increase in exports for the three months being $4,065,407.

For the year 1920 I look for a decreased value of fish exports but an increased value of mine products of all kinds.

TOURIST TRAVEL.

Alaska is now recognized by tourists as one of the most interesting parts of North America to be visited, and as transportation facilities become enlarged and bettered, travel to the north during the summer season will constantly increase. Even now during the months of June, July, and August all available passenger accommodations are taken by tourists, often causing great delay and inconvenience to Alaskans coming to or going from the Territory. Besides those merely engaging passage for the round trip on steamers running to southeastern and southwestern Alaska, there are many who make the trip down the Yukon River, coming out by automobile over the Valdez-Fairbanks highway, or continue down the river to Nome and thence by steamer to Seattle. The Government railroad will soon be constructed past the entrance to the Mount McKinley National Park, whither many lovers of nature will be drawn by the beauty of the highest mountains in North America.

During the past year it is estimated that 2,500 tourists visited Alaska. I have yet to hear any sentiment of dissatisfaction.

The inland waters of southeastern Alaska afford ideal cruising grounds for both large and small power yachts; a number of which were Alaskan visitors during the past year.

The Alaska bureau of publicity, at Juneau, is glad to give all information concerning routes and approximate costs of travel.

ALASKA ADVISORY COMMITTEE.

The Alaska advisory committee was formed by and at the request of the Secretary of the Interior and was composed of representatives of the Interior, Postoffice, Agricultural Departments, and the United States Shipping Board; its purpose being to advise as to what immediate steps could be taken to better conditions in Alaska.

About a month was devoted to the inquiry, during which time the committee examined a mass of data connected with Alaska and held conferences in Seattle at which interested persons were heard.

The report is excellent and shows a great deal of conscientious study.

I do not agree with the proposed solution of the transportation problem but in many of the other recommendations I fully concur as an examination of previous reports will show. The suggestion of the investigation of the commercial feasibility of smelting Alaska copper ores within the Territory is most constructive and I note with great interest that such investigations have already been started.

Interdepartmental committee investigations such as have been conducted, will always be of benefit to the Territory as not only can the departments thus be brought in contact with those interested in Alaska but also with each other to mutual understanding and benefit.

The full report of the committee is found in the appendix.

TRANSPORTATION.

The great outstanding problem of Alaska is that of transportation. The public of coastal Alaska is served by three regular passenger and freight steamship lines—two American and one Canadian—represent-

ing about 25 per cent of the tonnage operating in the Territory. The Yukon River system is served by one line of river steamers of the White Pass & Yukon Route presumably controlled by British capital. The Kuskokwim River is served by a small, combination freight and passenger ship sailing from San Francisco to Bethel, while the inhabitants of the valley itself are dependent upon one small American river steamer. There are a few semicommon carriers operating locally with indifferent success.

The Copper River & Northwestern Railroad runs from Cordova to Kennecott, a distance of 196 miles, and is primarily an ore-carrying road, but performs the function of a common carrier. The railroad of the White Pass & Yukon Route extends from Skagway in Alaska to Whitehorse in Yukon Territory, a distance of 110 miles, 23 of which are in Alaska. The Yakutat & Southern Railroad, from Yakutat to the Seetuck River, carries little besides fish. The Government railroad from Seward to Fairbanks is still under construction and is described elsewhere in the report.

This, then, in brief practically covers the common-carrier systems to and within Alaska.

At a time when the products and wages of the Territory commanded higher prices than elsewhere in the United States and when bonanza gold pay streaks could bear almost any expense of mining, the cost of transportation was a matter of secondary importance. Now, however, when the price of products, wages, and mining bear the same relation to similar conditions elsewhere, the greatly increased costs of transportation bear heavily on industry. To overcome the higher tariffs, the large operators, particularly in the fishing industries, have put on their own ships, amounting to approximately 75 per cent of the total tonnage operating in Alaska, thereby cutting down the revenues of the regular liners, necessitating increased tariffs which must be publicly borne. Increased tariffs then force out some industry, necessitating a further increase of tariffs on the remaining tonnage to be moved. The Territory is faced with the probability of a further increased tariff in the near future. No one can foretell where it is all going to end.

To equalize the burden of transportation, the Territorial shipping board proposed through Federal legislation to enact a tonnage tax on all ships in Alaska, and with the fund so raised and through the power of contract build up regular and regional service on agreed upon equitable rates and schedules. It is not proposed to drive out the privately owned ships or foreign-owned ships, but to make them all share in building up a service to all parts of Alaska affected by water transportation.

An interdepartmental board appointed by and at the request of the Secretary of the Interior has reported in favor of a consolidation of the American lines. I do not favor the recommendation, as a monopoly would then exist and would remove all present competition for business. The steamship companies, while appearing to give serious consideration to the proposition, in reality are not making any great effort to comply with the recommendation.

The bill introduced into the Senate of the United States at the instance of the Territorial shipping board has received a great deal of opposition from owners of private carriers and seemingly from

the subsidized Canadian line. The bill was drawn after an exhaustive investigation lasting nine months, during which the most complete data ever attempted covering transportation to Alaska was compiled. Hearings were conducted before the Senate Commerce Committee, and the plan advocated received high commendations from several members of the committee.

Unless the transportation problem is solved the Territory will be badly crippled.

WAGON ROADS AND TRAILS.

There are three principal road and trail building agencies in the Territory—the Alaska Road Commission of the War Department; the Bureau of Public Roads, constructing roads within national forests under section 8 of the Federal aid roads act, in cooperation with the Territorial authority; and the Territorial road commission, acting under authority of the legislature. A small amount annually available to the forestry officials is chiefly used in making trails. A cooperative spirit has been shown on the part of all concerned, with the result that roads are now being built along mutually agreed upon plans, and if only more money could be made available extending over a period of years Alaska would soon have a comprehensive system of wagon roads. Wagon roads will do more toward internal development than will almost any project. I recommend the extension of all the provisions of the public-aid roads act to Alaska in the same way as to the States, and authorizations and appropriations for the Alaska Road Commission to enable it to inaugurate a 10-year building program. The appropriation for the next fiscal year should be approximately $1,000,000. There should be an appropriation for the construction of feeder wagon roads to the Government railroad. Feeder roads, to be built faster than the road commissions can possibly provide for, are absolutely necessary if the railroad is to be placed on a paying basis.

FEDERAL ROADS IN ALASKA.

The Alaska Road Commission, constituted by act of Congress approved January 27, 1905, is composed of three officers of the Army, reporting to the War Department through the Chief of Engineers.

The Federal funds disbursed are made available by congressional appropriation "Construction and maintenance of military and post roads, bridges, and trails, Alaska," and from the Alaska fund "Construction and maintenance of roads, bridges, and trails." In addition to the above funds the Territory has contributed funds for disbursement by this commission upon cooperative projects for road construction. The total expended for all construction and maintenance to June 30, 1920, was $5,279,256.92. Of this amount $3,020,000 was appropriated by act of Congress, $2,158,072.26 was allotted from the Alaska fund, and $101,184.56 was contributed funds from the Territory. Approximately 5,000 miles of wagon road, sled road, and trail have been constructed and maintained by this board since 1905. Of the roads constructed about 400 miles have a gravel surface and are suitable for light automobile traffic.

A total of $358,601.25 was expended during the fiscal year ended June 30, 1920. Of this amount $173,410.59 was for maintenance and $185,190.66 was for construction.

The truck and automobile traffic is increasing on all the roads of the board and an effort is being exerted to extend the gravel surfacing.

The main project constructed and maintained by this board is the Fairbanks-Valdez-Chitina Road. This road from the coast on Prince William Sound to the interior is the mail route to Fairbanks. Connection is made through this road and the various intersecting roads and trails with practically all settlements west of the one hundred and forty-first meridian. This 320-mile road from Chitina on the Copper River Railroad to Fairbanks is the main traveled route and is in excellent condition. The branch to Valdez is blocked as the result of a severe washout in July, 1919, near Keystone Canyon. A vigorous effort is being made to open up the damaged portion of the road during the present working season.

Aided by cooperative funds from the Territory, an effort is also being made during the present working season to carry on work on feeders to the Government railroad. Work is being prosecuted upon a road from Talkeetna to the Cache Creek mining district and the old road from Wasilla to Willow Creek is being improved. Work is also in progress upon a road as an outlet to the important Kantishna mining district to the head of navigation on the Kantishna River.

The appropriation of $350,000 for 1921 has made possible the rehabilitation of many old and important projects and the initiation of work upon several very worthy new projects. To take advantage of the Government railroad and to provide for a systematic development of Alaska's roads it is proposed to start upon a 10-year program of road construction, and for the initial year $955,000 has been requested.

Besides the above roads construction was carried on by the Department of Agriculture on roads within the limits of the Tongass and Chugach Forests in southeastern and southwestern Alaska. These projects in some cases were aided by funds contributed by either or both the Alaska Road Commission and the Territory of Alaska. The work projected includes work on nine different roads. The Secretary of Agriculture has allotted $258,500 to these roads and the Territory of Alaska and the Alaska Road Commission, respectively, $104,000 and $62,000. Besides the above cooperative roads the Territory is cooperating with the Alaska Road Commission upon the Tacotna-Ophir road in the Kuskokwim district, and upon work in the second judicial division.

The road law of the Territory has been a great aid to the Alaska Road Commission in extending cooperation upon important projects and thus enabling work to be initiated in the spring before the Federal appropriation is available.

TERRITORIAL AND COOPERATIVE ROADS.

In addition to roads constructed and maintained directly through Federal appropriation or authorization the legislature, at its last session, appropriated $375,000 for roads and trails for the biennium

ending March 31, 1921. To this amount was added $19,092.62, being 25 per cent of the receipts from the national forests, made available for Territorial road work, a total of $395,092.62 for the biennium.

At the beginning of the present Territorial fiscal year, ending March 31, 1921, there remained unexpended and available for Territorial road work a balance of $237,619.35, which was allotted and apportioned to the four judicial divisions as follows:

First division	$61,760.47
Second division	47,934.21
Third division	79,878.85
Fourth division	48,045.82

In making the above allotments the Territorial board of road commissioners were governed by the divisional allotments of the previous fiscal year and allotments were so made as to give each judicial division an equal amount for the biennium.

Under section 2 of the recent Territorial road act cooperative agreements with Federal agencies were entered into for the fiscal year on the following projects, with the Secretary of Agriculture, for the construction of roads under the supervision of the Bureau of Public Roads:

FIRST DIVISION.

Portage road, Prince of Wales Island:	
Secretary of Agriculture	$5,000
Territory	3,500
Petersburg-Scow Bay road, Petersburg, Alaska:	
Secretary of Agriculture	5,000
Territory	2,500
Ketchikan-Ward's Cove road, Ketchikan, Alaska:	
Secretary of Agriculture	22,500
Territory	10,000
Juneau-Eagle River road, Juneau, Alaska:	
Secretary of Agriculture	20,000
Territory	10,000
Salmon River road, Hyder, Alaska:	
Secretary of Agriculture	35,000
Territory	15,000

Furthermore, $15,000 was paid on last year's agreements. The sum of $6,760.47 is being expended on local roads and trails under the supervision of the Territorial divisional board.

SECOND DIVISION.

For the purpose of economy and efficiency, an agreement was entered into with the Alaska Road Commission for the construction and maintenance of all roads and trails within the second division whereby all Territorial funds would be expended under the supervision of the Alaska Road Commission on a cooperative basis of not less than $1 of the Alaska Road Commission to $2 for the Territory.

THIRD DIVISION.

Cooperative agreements were entered into with the Secretary of Agriculture on the following projects:

Quartz Creek-Russian River road, Kenai Peninsula:	
Secretary of Agriculture	$45,000
Territory	15,000

Seward-Kenai Lake road, Seward, Alaska:	
Secretary of Agriculture	9,000
Territory	5,000
Katalla road, Katalla, Alaska:	
Secretary of Agriculture	18,000
Territory	6,000

A cooperative agreement was entered into with the Alaska Road Commission for the commencement of the construction of the Talkeetna-Cache Creek road, 45 miles in length, the Alaska Road Commission allotting $10,000 and the Territory $30,000. The Alaska Road Commission has since made an additional allotment of $35,000 to this project. The Territorial divisional board is expending $23,878.75 on still other roads in the division.

FOURTH DIVISION.

All Territorial funds of this division are being expended under the supervision of the divisional board, except a small amount which is being expended under cooperative agreements with the Alaska Road Commission on the Tacotna-Ophir Creek road, upper Kuskokwim district, on the basis of Alaska Road Commission $12,000 and the Territory $8,000.

By authority vested in the Territorial board, cooperative agreements with the Federal agencies mentioned above were made possible, and during the biennium an aggregate amount of $258,500 was secured through cooperative agreements from the Secretary of Agriculture, under authority of section 8 of the Federal-aid road act. The advantage and benefit gained thereby are easily seen, as only through cooperative agreements could this additional money for road work have been secured. At present the only Federal appropriation available for cooperative contracts is applicable to projects within national forests, and it is therefore hoped that the Federal-aid road act will be extended to the Territory, as under the act cooperative work on any mail route in the Territory will be made possible.

ALASKAN ENGINEERING COMMISSION.

Not a great deal was accomplished in actual new construction of the Government railroad in Alaska during the first few months of the fiscal year 1920 because of the lack of appropriation and the uncertainty surrounding it. The original authorization of $35,000,000 was almost exhausted and data was being assembled for presentation to Congress asking for an additional authorization of $17,000,000. This was presented in July, 1919, and after extended hearings Congress granted the additional authorization in an act which was approved by the President on October 18, 1919 (Public No. 59). Of course, during these months the road was operated and maintained as well as possible under the circumstances, and some construction work done.

A plan of work was adopted in the early autumn which in its essential part embodied the following features:

Operation of a steamer to transport labor to and from Alaska, the labor forces in the Territory being entirely inadequate for the prosecution of the work.

Purchase of supplies in the States sufficiently in advance for shipment to Alaska and their distribution along line over snow and ice during winter months.

Establishment of a supply division to attend to the securing and shipment of labor, handling of shipping of materials and supplies, and to have general supervision over placing of orders for supplies, etc.

Consolidation of Seward and Anchorage divisions into one organization (southern division).

Completion of 1919 construction program on snowsheds, tunnel enlargement, and new bridge work between miles 40 and 60.

Continuance of work on reconstruction and rehabilitation, also ballasting, etc., of old Alaska Northern line.

Grading from mile 236 to 261, some parts of which had been finished but later damaged by action of river, rain, and snow.

Working of a few pile-driver and bridge gangs all winter between Talkeetna and mile 261.

Attacking during winter of grading work from crossing of Susitna River to and including Rocky Canyon of Indian River, providing wagon road for freighting supplies ahead through Chulitna Pass to Hurricane Gulch.

Clearing of right of way for remainder of distance between miles 261 and 360, gangs working from both ends.

Stripping heavy moss from some of larger cuts to permit thawing.

Construction of wagon road from Indian River through Broad Pass to connect with similar road on northern division.

Pushing forward of supplies, contractors' equipment, etc., for use in grading as far as Hurricane Gulch during summer of 1920 to permit construction of big steel-arch span over this gulch in winter of 1920 and 1921.

Completion of line north of Tanana River to Gold Stream and operation as narrow-gauge line in connection with Tanana Valley Railroad as one unit.

Extension of track southward from Nenana to mile 358 (foot of Nenana Canyon).

Transfer of supplies to new camp at mile 358 for attacking heavy work in Nenana Canyon.

Congress having appropriated $6,000,000 on November 4, 1919, the plans as outlined were set in motion. The rehabilitation work on the Alaska Northern portion of the line reached the stage permitting the use of heavy locomotives and cars for the entire distance. To enable this necessitated, however, the construction of a switchback in mile 48 to eliminate the use of the high trestle, which was unsafe and which will be replaced with a structure for permanent use.

The snowsheds as planned and the tunnel enlargements were completed and good progress made on the bridge work.

In new construction on the southern division track was extended to mile 242 by the end of June, 1920. Good progress was also made in new grading work northward to Hurricane Gulch, mile 284, and in making ready for track the grade constructed some months before.

Owing to a most heavy and unusual fall of snow with accompanying complications, the road construction and delivery of supplies northward from end of the track laid to date were considerably hampered. However, by augmenting the transportation service with two

river boats on the Susitna River in the early summer of 1920, sufficient supplies have been kept at the front to enable operations to continue.

Contracts have been let for practically all clearing of right of way remaining to be done. Clearing has been completed northward to mile 267½, and with the exception of about 8 miles, northward to mile 284.

On January 30, 1920, a contract was closed with the United States Steel Products Co. for furnishing and erecting the first large steel bridge on the line as one progresses inland from Seward. This is the bridge over the Susitna River at mile 264, known as the Gold Creek crossing. The fabrication of this bridge was commenced soon thereafter, and it is contemplated that it will be erected during the fall of 1920 and winter of 1920–21.

The wharf facilities at Anchorage, including dredging, were completed to such extent that the largest vessels in the Alaska trade may tie up at the dock at all stages of the tide.

On the northern division (old Fairbanks division) the main line has been completed between the north bank of the Tanana River and Fairbanks, and track has been extended southward to mile 358, the foot of Nenana Canyon. Contracts for grading and tunnel work in the Nenana Canyon have been let and good progress made, considering adverse circumstances mentioned further on. Clearing has been completed on the division to mile 333.

The rehabilitation work on the Tanana Valley lines has been continued.

The branch line to Chena, no longer serving any useful purpose, inasmuch as the main line from Nenana to Fairbanks is completed, was taken up and the rail used elsewhere.

The operation and construction activities in this division were greatly retarded by the severe epidemic of Spanish influenza, which belatedly prevailed during the spring of 1920. Many deaths resulted therefrom and the physical weakness and demoralization accompanying the epidemic were greatly felt.

As stated above, when the program was formulated it was recognized that the labor situation would continue acute. However, after thorough investigation it was found inadvisable for the commission to operate a steamer of its own for the transportation of labor. Instead, an agreement was entered into with the two steamship lines operating to Seward and Anchorage for reduced rates for men and material. Under the arrangement, 715 unskilled laborers were shipped between January 1 and June 30, and details completed for the shipment of approximately 500 more laborers during the first few weeks of the fiscal year 1921. A great many more men could have been used, but could not be obtained.

The supply division was established as planned, with an office at Seward, and just before the close of the fiscal year moved to Anchorage to enable a close touch to be kept with the headquarters office.

During the past year the Alaskan Engineering Commission has employed from 75 to 85 men at Eska and from 30 to 35 at Chickaloon to furnish fuel for the Government railroad and to prospect that portion of the Matanuska coal field immediately tributary to Chickaloon.

At Eska there are six coal beds under exploration, the average thickness approximating 3 feet. Upon these beds over 9 miles of

underground workings have been driven since the commission acquired the property in 1917, providing over 3,300 tons monthly for the commission's current uses and blocking out over 100,000 tons for the future. This mine is not gaseous, and roof and floor conditions are good so that but few injuries have resulted from accidents underground. During the past two years Mr. Theodore Chapin, of the United States Geological Survey, has made extensive study of the geological conditions both at this mine and at Chickaloon, the results being published by the United States Geological Survey in Bulletin 712–E.

At Eska there has been considerable faulting but the outcrops of the extensions of the beds now under exploration have been determined during the past year by open cutting and churn drilling and crosscuts started which will insure fuel in sufficient quantities for the commission's needs for many years to come.

At Chickaloon a 45° slope has been sunk along the strike of the coal and a second level opened approximately 250 feet below the first.

Several new cottages have been constructed for the families of married employees, the camp wired, and a small electric lighting set installed.

On June 17, 1920, a cooperative agreement was entered into between the Navy Department and the Department of the Interior, whereby the Chickaloon mine, theretofore operated by this commission, was taken over July 1, 1920, for the purpose of mining coal for the Navy.

The road when completed will be of great benefit to all interior development, particularly if needed feeder wagon roads are constructed. The Territorial road commission and the Alaska Road Commission are cooperating as far as possible, but in the effort to make the road self-supporting provision should be made for a comprehensive system of roads into all the tributary mining and agricultural districts. There should also be a determined effort to direct settlers, prospectors, and capital to the many resources in the country traversed.

MAIL SERVICE.

Great discontent is still being manifested over the inadequate mail service. Mail to Alaska is still shipped as freight or express and often comes badly damaged. This is particularly true of shipments by parcel post. Mail freight seems to be handled with no more consideration than ordinary freight. The Post Office Department and the steamship companies seem unable to agree on any form of mail contract. In the meanwhile the public suffers.

Mail into the interior of Alaska this coming winter will be handled from Seward to Fairbanks over the Government railroad, where constructed, and transported by sled over the gap on which rails have not yet been laid.

Mail service to Kodiak, the Aleutian Islands, and Bristol Bay is most unsatisfactory as well as to the settlements of the Kuskokwim. Nothing so builds up a country as well-conducted mail service. I trust that conditions may soon be bettered.

LABOR.

During the year there has been a shortage of labor in many industries. The mines have practically all been working short-handed, and as a consequence production has been cut down, particularly in gold. Until the commencement of the World War in 1914 the Alaska wage scale was nearly double that of the States, but the great demand since that time in the States, coupled with the increased costs of living, has driven wages paid in the States to a near equality with the wages paid in Alaska. Alaskan industries, particularly that of gold mining, have not been able to compete for labor, and as a consequence laboring men have preferred to stay in the centers of great activity.

The condition of laboring men is, however, really better in Alaska than elsewhere. Rents are low and merchandise in southeastern and southwestern Alaska no higher than in the Puget Sound towns. In Alaska the opportunities for saving are greater, as there is not the same temptation to spend on either amusements or "boiled" shirts, silk stockings, and high-heeled shoes. Although the price of practically everything is increasing and will probably increase still further, it is gratifying to note the steady increase in savings deposits in the Territorial banks.

Due to a shortage of labor, the Alaskan Engineering Commission was obliged to import a large number of laborers for the construction season.

There have been few labor disturbances during the year. During the latter part of 1919 an attempt was made on the part of the I. W. W. to foment strikes throughout the Territory, but this failed through lack of support. In the latter part of the fiscal year an attempt was made to organize a strike of native fishermen on the west coast. A strike of fishermen took place on Prince William Sound, but was settled. The coal miners of the Alaskan Engineering Commission struck for an increased scale of wages, as did the miners in the Bering River field. In both instances an agreement was finally reached.

MINING CONDITIONS.

Following my comments on mining will be found the detailed preliminary report of the United States Geological Survey on mining in Alaska. The report is most valuable and of usual excellence, but I must take exceptions to some rather pessimistic conclusions. It is true that mining has never before been so handicapped as at present, that operating costs are practically prohibitive in places, and that transportation could hardly be worse, but I see great hope for the speedy reestablishment of the mining industry and many mining men with whom I have talked thoroughly agree with me. The gold prospects of the Kuskokwim Valley have attracted the attention of mining men throughout the country, and one company already is doing extensive development work. Machinery has been shipped to the Nixon Fork of the Kuskokwim and preparations are being made to thoroughly exploit that district. It is reported to me that already enough high-grade ore has been uncovered to more than pay for the heavy initial expenses. In the Kantishna district there is great activity, particularly along the silver lead lodes of great richness, and

other new finds are being reported to me constantly. Some hydraulicking projects, too, are being pushed. In the Fairbanks district some of the lodes show every indication of becoming mines. Chicagof Island prospects, bearing high gold assays, have been bonded for large sums of money, with substantial preliminary payments. There is renewed interest in Admiralty Island and in the mines of Lynn Canal. Among the other districts of promise may be mentioned Willow Creek, Broad Pass, Portland Canal for gold and silver, Cape Prince of Wales for tin, and Prince William Sound for copper. There are more prospectors in the hills than at any time since the war, and experience has shown us that when prospectors are busy there is always some valuable mineral discovery made. We need, though, more prospectors. Transportation conditions, however, are the greatest handicap to successful mining that we have. Until some cheap form of transportation is available we can not hope to open up the great low-grade mines of lode or placer. Development for the present will be only on those mines showing high values.

Of material assistance to the gold-mining industry would be the passage of the McFadden bill (H. R. 13201) providing for a bonus on gold to be collected from the manufacturer and to be paid the producer.

COAL.

Coal mining in the Matanuska coal fields is covered under the heading "Alaskan Engineering Commission." In the Bering River coal field the greatest progress has been made by the Bering River Coal Co., which is associated with the Kennecott Copper Corporation. A strike of miners in February greatly delayed development until the adoption of the same scale of wages as paid by the Alaskan Engineering Commission allowed of renewed activity. The company is now driving gangways on three or four veins of good coal. The coal on this lease of the Bering River field stands on a steep pitch and varies greatly in thickness by reason of the squeezing of the strata. Five thousand three hundred feet of tunnels, gangways, and chutes have been cut. Work will continue throughout the winter with a crew of about 40 men. A large tonnage has not yet been demonstrated as the greater part of the work has been mostly on rock tunnels, but 40,000 tons are developed and the company expects to make an output of at least 50 tons per day as soon as transportation can be provided by motor trucks running over a plank road from the mine to Bering Lake from where it will be moved by barges to Controller Bay or Cordova. When a mine of sufficient tonnage is developed a railroad connecting with the Copper River and Northwestern Railway will probably be constructed.

I believe the coal-leasing law should be amended so as to relieve the lessee of the payment of rentals for lands under lease for at least the first five years provided the terms concerning development are complied with. I also advocate freedom from royalties until the period of development is past. The exactions of rent and royalty during the formative period are discouraging to the operator. A simple and workable remedy would be to exempt any coal lease from the payments of rent and royalties for the first five years of the lease.

A high-grade lignite is reported from the Nenana field. This coal can not be considered an export coal but will be of great advantage to industry in the interior in replacing wood in the older mining districts and in the towns. Already it is being used in many houses and for all railroad requirements of the northern division of the Government railroad.

A certain amount of lignite is mined on Cook Inlet and being used at the near-by canneries and towns.

Coal is reported in the neighborhood of the Kuskokwim mines which will aid materially in mining operations.

Due to fuel-oil shortage the steamship companies are contemplating the conversion of their steamers from oil to coal burners. Should this happen there will be an immediate demand for Alaska coal. A coaling station in the Aleutian Islands for naval and commercial purposes is also under consideration.

PETROLEUM.

The passage of the oil-leasing act has resulted in a stampede to all the known oil-bearing areas. Already many applications have been filed for prospecting permits. There will probably be great confusion over locations as it seems that to locate 2,560 acres of oil land requires nothing more than to set up one stake. A 2,560-acre tract may be 2 miles square and extend in any direction from one stake. That there is considerable overlapping is known, and the oil fields would appear to be rich ones for the lawyer. An ideal hard to accomplish in an unsurveyed country would be to have locations conform to legal subdivisions.

Alaska petroleum compares favorably with the best Pennsylvania product, having a paraffin base with high gasoline content.

The only petroleum being at present produced is on the one patented claim owned by the Chilkat Oil Co. in the Katalla field, which is producing and refining about 40 barrels per day from six or seven shallow wells. The Chilkat Oil Co. in further prospecting drilled one well to a depth of 2,260 feet but was forced to abandon it by reason of caving material. A little oil was found at 1,035 feet and a little more at 1,430 feet but not in paying quantities. Another well recently started is down 200 feet.

On the Alaska Peninsula are found promising oil indications as well as at Yakataga.

Oil is reported on the Arctic coast. On account of the great expense involved in pipe lines and other transportation no development in this district can be expected unless a special law is enacted increasing the allowable leasing area to several times the acreage of the present law.

To encourage oil development in the Territory the Secretary of the Interior has placed the royalties at the legal minimum.

UNITED STATES GEOLOGICAL SURVEY.

The suboffice of the Geological Survey at Anchorage continued to serve as headquarters for a resident geologist and as a center of distribution for publications and maps. The geologist in charge con-

tinued to act as consulting geologist to the Alaskan Engineering Commission with special reference to coal-mining problems, and also visited the near-by mining camps. On February 1 the geologist in charge was granted a furlough, and about June 1 the office was temporarily closed for the reason that no qualified geologist could be obtained for the salary authorized. It is becoming increasingly difficult to obtain technical men for the available Government salaries. I find that this does not apply to the Geological Survey alone but to practically all of the scientific bureaus. They simply can not compete with commercial inducements.

The work of the Geological Survey in Alaska is of the greatest value. The prospector as well as the mine operator use the published bulletins almost as textbooks. The maps issued serve as guides for all travelers. At least the full amount of the prewar appropriation of $100,000 should be restored to the survey plus an amount which will enable them to equal prewar service.

WATER-POWER INVESTIGATIONS IN SOUTHEASTERN ALASKA.

Systematic investigation of the water resources of Alaska was begun by the United States Geological Survey in 1906 and carried on in different parts of the Territory to the present time. This investigation was undertaken in response to the need for definite information in regard to water available for many uses, among which the most important are hydraulicking, dredging, and supplying power for mines, canneries, and sawmills.

The investigation of the water resources of southeastern Alaska was begun by the Geological Survey in cooperation with the Forest Service in 1915 and was designed to determine the location and possibilities of sites where water power could be developed. It was believed that accurate data on the water available for power would encourage the extension of milling on a large scale of low-grade ore and the investment of capital in wood pulp and paper manufacturing plants that would utilize the vast timber resources of the Alaska forests.

Records of flow are now being obtained at 20 gauging stations, as shown in the following list:

Myrtle Lake outlet at Niblack, Prince of Wales Island.
Ketchikan Creek at Ketchikan.
Fish Creek near Sea Level, Revillagigedo Island.
Swan Lake outlet at Carroll Inlet, Revillagigedo Island.
Orchard Lake outlet at Shrimp Bay, Revillagigedo Island.
Shelockum Lake outlet at Bailey Bay, mainland near Ketchikan.
Karta River at Karta Bay, Prince of Wales Island.
Cascade Creek at Thomas Bay, mainland near Petersburg.
Green Lake outlet at Silver Bay, near Sitka.
Baranof Lake outlet at Baranof, Warm Springs Bay, Baranof Island.
Sweetheart Falls Creek, near Snettisham.
Crater Lake outlet at Speel River, Port Snettisham.
Long River, below Second Lake, at Port Snettisham.
Speel River at Port Snettisham.
Grindstone Creek at Taku Inlet.
Carlson Creek at Sunny Cove, Taku Inlet.
Sheep Creek near Thane.
Gold Creek at Juneau.
Falls Creek at Nickel, Chichagof Island.
Porcupine Creek near Nickel, Chichagof Island.

The data collected at the gauging stations, which include tables showing the results of discharge measurements and computed daily discharge, are published in United States Geological Survey Bulletins Nos. 662, 692, and 712.

Copies of computed records not yet published and preliminary estimates of flow for any station can be obtained by application to the Director of the Geological Survey, Washington, D. C., or to G. H. Canfield, engineer of the Geological Survey, Juneau, Alaska.

UNITED STATES BUREAU OF MINES.

THE ALASKA EXPERIMENT STATION.

The Alaska Experiment Station of the United States Bureau of Mines, at Fairbanks, continued its work of investigating the fuels and ores of Alaska. The lignites of the Nenana fields were studied and further experiments conducted to determine the efficiency of this fuel. In connection with the fuel problem the superintendent of the station visited many localities in the States and Canada studying the latest developments and processes for utilizing lignite.

The metallurgical laboratory of the station was employed during the year in the investigation of the gold recovery from placer black sands, the separation of gold from an antimony ore from Nome, and the concentration of a copper ore from Latouche.

A large number of determinations were made on samples submitted to the station by prospectors and others interested in mining, in order to encourage the development of promising mineral deposits and discouraging useless work on worthless deposits. The results of these determinations are reported to the interested parties.

The custom assay work done by this station was taken advantage of by many mining men. The fact that reliable assays can be obtained through the station in much less time than that required in sending samples outside results in great saving of time to the prospector and operator.

The Alaska station has lately undertaken the investigation of placer conditions in the interior. This investigation will include a study of mining methods with a view to cheaper mining.

The station continues to cooperate with the Alaska chapter of the American Mining Congress in all questions relating to the advancement of mining in Alaska and aid to the mining industry.

Trips are made by the technical members of the staff to different mining districts during the year to acquaint themselves with the needs of the several districts.

The activities of the bureau in the Alaska field should be extended not only over a greater territory but also to the issuance of bulletins covering mining prospects, which could be used by the prospector to interest investors. These bulletins should not contain any recommendation or surmise but should be simple reports of conditions as found. Such reports would indicate to the mining operator on the lookout for new properties whether an examination by one of his engineers is warranted or not. One of the great difficulties in mine exploitation is that capital and the prospector have hard work getting together, and, due to the natural optimism of the prospector, the

operator as a rule desires some confirmatory evidence before going to the expense of an examination in a remote country.

MINING IN ALASKA, 1919.

The following statement is prepared by the Division of Mineral Resources of Alaska of the United States Geological Survey:

The winning of some $20,000 worth of gold from placer mines near Juneau in 1880 marked the beginning of the great mining industry of Alaska, the value of whose total product up to the close of 1919 is $438,161,000. Alaska's developed mineral deposits are chiefly gold and copper. Hence, her mining industry in 1919 was subject to the same depression that affected gold and copper mining throughout the world. This fact explains in large measure why the value of Alaska's mineral output in 1919 is only about $19,620,000, while that of 1918 was $28,254,000.

Alaska's mineral output in 1919 is the smallest made in any year since 1910, and its value is less than half that of the output in 1916 ($48,600,000). The abnormal production in 1916, chiefly that of three large mines, was due to the high price of copper during the war, which greatly stimulated copper mining. With the fall in the price of copper the Alaska copper industry reverted to more normal prewar conditions. Meanwhile the world-wide depression in gold mining consequent upon high operating costs brought on by the war has seriously crippled the other important Alaska mining industry. As a consequence, the value of the annual output of gold from Alaska declined from $16,700,000 in 1916 to $9,426,000 in 1919. The Alaska gold-mining industry is particularly sensitive to present conditions because many of the enterprises were not on a very sound economic basis. Gold production has been kept up for many years by the exploitation of bonanza placers rather than by the systematic development of large deposits of lower grade. The mining of placer gold has been carried on as a gamble rather than as a business venture. As the purchasing power of their product was reduced, many gold-mining operators have been attracted to other fields, such as oil drilling in the States, in which the chances of large speculative profits were greater than in placer mining. It is especially unfortunate that the only large gold-mining ventures in Alaska were the lode mines near Juneau, where the margin of profit was so small that the increased cost of operations due to the war have imperiled the success of the undertakings.

The outlook of gold mining in Alaska under present economic conditions is not hopeful, yet the continued success of certain larger ventures, like dredging, shows that it is by no means hopeless. Such operations and the mining of bonanza deposits will continue. Alaska still contains large reserves of gold-bearing gravels that can be mined profitably when transportation conditions are improved. No one can foretell whether any more bonanza camps will be found, and therefore the only certain future lies in the development of deposits of lower grade. Therefore the most important event of the year for the future of mining in Alaska was the continuation of the work on the Government railroad and the assurance by congressional action of the money needed to complete the line. It is now certain that in three years there will be a standard-gauge railway connecting tidewater on the Pacific with Fairbanks and navigable waters on the Yukon. To give its full benefit to the mining industry, however, the Alaska Railroad must be connected with mining centers by good wagon roads.

Except for the railroad construction during the year, the transportation conditions in Alaska have been worse in 1919 than in any previous year. The coastal steamboat service has been unable to meet the demand for freight and passenger transportation, and the river steamer service on the Yukon and its tributaries has been worse than ever. These conditions have tended to discourage those who were planning new ventures.

Approximate value of Alaska's mineral products in 1919.

Gold	$9,426,032
Copper	8,783,063
Silver	705,273
Coal	343,547

Lead	$72,822
Tin	73,400
Platinum, palladium, petroleum, marble, and gypsum	216,776
Total	19,620,913

PLACER MINING.

During 39 years of mining Alaska has produced gold to the value of more than $311,000,000, and $218,000,000 of this amount is to be credited to her placer mines. For reasons already discussed, there was less placer mining in 1919 than in 1918, and the outlook for a revival of the industry as a whole under present economic conditions is not hopeful. In the following table a comparison is made between the placer-mining industry in 1919 and in 1918:

Alaska placer mining in 1918 and 1919.

	Placer.		Lode.		Value of output.
	Mines.	Miners.	Mines.	Miners.	
1918	574	3,000	153	613	$5,900,000
1919	466	2,177	88	318	4,970,000
Decrease in 1919	108	823	65	295	930,000

A most unfortunate effect of the decline in gold, especially in placer mining, is the discouragement of the prospector. Though many prospectors devote their attention to the search for copper and other minerals, they as a class are held to their vocation by the hope of finding rich placers which they can develop by individual effort. The loss of 900 men to the placer-mining industry, as shown by the above table, means the loss of an equal number of at least potential prospectors. Many prospectors have been drawn away from Alaska by the high wages and good business opportunities which war conditions have created in the States. It is, indeed, no longer necessary to go to Alaska to obtain high wages. As a consequence probably half, possibly three-quarters, of the prewar Alaska prospectors have sought other fields.

Gold dredging continues to hold an important place in Alaska placer mining. In 1919 there were 28 dredges in operation for the whole or part of the season and they produced gold to the value of about $1,360,000, compared with an output of $1,425,000 worth of gold by 28 dredges in 1918. Two of these dredges were operated in 1919 in the Fairbanks district, 2 in the Iditarod district, 1 in the Birch Creek district of the Yukon Basin, 1 in the Mount McKinley district of the Kuskokwim Basin, and 22 on Seward Peninsula. One of the Fairbanks dredges and the Kuskokwim dredge were first operated in 1919 and had successful seasons, showing that dredging can be profitable even under present adverse conditions. This fact and the successful gold dredging in Seward Peninsula during the last 15 years proves that this type of mining has an important future in Alaska. In nearly every placer-mining district of Alaska there are large areas underlain by auriferous gravels which justify exhaustive prospecting for the purpose of finding dredging ground. The successful use of cold-water thawing in connection with dredging enterprises should give a further stimulus to this form of mining.

The Yukon placer camps are the most isolated of the important Alaska mining districts and are therefore the places where the cost of mining is highest, so that they are the most sensitive to present economic conditions. This fact is reflected in the comparison of their gold output for 1919 and 1918, made in the subjoined table. Fortunately the loss at the Yukon camps was in part offset by a somewhat greater production of gold at the placer mines on Seward Peninsula.

Estimated value of placer gold output of Yukon districts, 1918–19.

	1918	1919
Fairbanks	$800,000	$730,000
Iditarod	1,240,000	725,000
Tolovana	875,000	525,000
Ruby	400,000	165,000
Circle (Birch Creek)	175,000	135,000
Hot Springs	150,000	100,000
Koyukuk	150,000	110,000
Marshall	150,00	*100,000
Innoko	120,000	150,000
All others	129,000	170,000
	4,189,000	2,910,000

The placer gold output of the Fairbanks district was produced by about 53 summer mines, employing 349 men, and about 24 winter mines, employing 86 men. Drift mining is on the wane at Fairbanks, for in 1918 there were over 40 deep mines and in 1919 there were only 28. As only the deep mines can be operated in the winter, this condition has resulted in a great curtailment of winter operations and has made the labor problem more serious, for it is impossible to have a permanent mining population where employment is assured only for the summer. The larger part of the known deep deposits of rich ground at Fairbanks has been worked out, and it will probably be impossible, under the present cost of operation, to revive this form of mining on a large scale. The conditions here, however, are improved now that the camp can be assured of fuel at reasonable cost from the Nenana coal field. The best immediate prospect for the revival of placer mining at Fairbanks is that of exploiting the large reserves of auriferous gravel that can be mined by dredges and steam scrapers. This gravel will be mined by the use of Nenana coal after the general conditions are improved by the establishment of direct rail connection with the coast.

Mining in the Iditarod district, except that done by the dredges, is decreasing year by year. Much of the rich placer ground has been worked out, and the isolation of the district, with the consequent difficulty of obtaining labor and the high freight rates, has not encouraged the exploitation of the placers of lower tenor. The same is true to a great extent of the Tolovana district, where most of the mining has been done by underground methods; but some shallow placers in this district can be developed when operating costs are reduced. Nothing of importance was done in the Hot Springs district.

Except for the discovery of another pay streak on Poorman Creek there was no important advance in the Ruby district during 1919. Placers were discovered on the Hogatza River, in the Koyukuk district, in 1919, but they have not yet been sufficiently developed to determine their value. Placers are also reported to have been discovered in the Birch Creek Basin, tributary to Wild River, and also in the district of the Koyukuk, though these reports have not been verified.

These placers are in inaccessible regions and would have to be very rich to justify their development under present conditions. These reports, however, indicate that not all the Alaska prospectors have become discouraged. The gold production from the Marshall district has been maintained by the output of a few mines working on comparatively rich placers.

Placer mining in the Fortymile district and in the smaller Yukon districts is being, and under present economic conditions will be, continued principally by men who have operated in these regions for a long time, yet no doubt a large percentage of such mining is being done at a loss if the owner charged his own services at present high wages against the cost. The same is true of the Kobuk, the most inaccessible placer camp of Alaska. Such mining will, however, be continued by many who prefer the independence of working their own small mines to the more substantial reward that they might gain by working for others. At least half of the placer mines operated in 1919 were probably of this type, and they gave employment perhaps to 500 or 600 men. The value of their output is estimated to be between $500,000 and $600,000.

The only important operation in the Kuskokwim basin in 1919 was that of the dredge on Candle Creek, which was installed in 1918. Placer mining was,

however, continued in a very small way in the Kuskokwim and Goodnews Bay region. In all about 20 mines were operated in these regions, employing about 100 men.

Seward Peninsula was the most prosperous of the Alaska placer-mining regions in 1919. It produced gold to the value of $1,360,000, compared with $1,108,000 in 1918. A total of 22 gold dredges were operated in the Seward Peninsula during 1919, distributed as follows: Seven in the Nome district, seven in the Council district, four in the Solomon district, two in the Port Clarence district, and one each in Kougarok and Fairhaven districts. These dredges used the so-called "cold-water method" of thawing the gravels. In addition to the dredges, about 75 open-cut mines and 13 deep placer mines were operated on Seward Peninsula in 1919. About 555 men were employed in placer mining, and about 60 of these were engaged in deep mining during the winter. Tin mining in the peninsula will be described below. About 31 ounces of platinum was won from the gold placers of the Dime Creek region, in the southeastern part of the Seward Peninsula.

There were no important developments in placer mining on the Pacific slope of Alaska during 1919. The value of the placer gold output from this region was about $325,000 in 1919, as compared with $412,000 in 1918. Hydraulic mining was continued on a considerable scale in the Nizina district of the Copper River basin. The gold output of the Yentna district was less in 1919 than in 1918, because the dredge was not in operation. A hydraulic plant is being installed to furnish power for the dredge. So far as known beach mining at Yakataga and other places continued on about the same scale as in previous years.

As has been shown, the general economic conditions that affect Alaska gold mining, and especially placer mining, are world-wide in their influence. The Alaska placer miner has, however, in addition, his own special difficulties, and these relate principally to transportation. With a decrease in placer mining has come a decrease in transportation facilities and an increase in freight rates. The best aid that can be given the miner and prospector is good transportation service by water and land and reasonable freight rates. Of first importance is the completion of the Alaska Railroad, but better and cheaper steamboat service, on both ocean and river, are also imperative. Moreover, if the railroad is to be fully used for the development of the resources of the Territory it must be supplemented by trails and wagon roads.

GOLD LODE MINING.

Twenty-three gold lode mines were operated in Alaska in 1919 and produced gold worth about $4,392,237. Twenty-five mines were operated in 1918 and produced gold worth $3,473,000. The increase in 1919 came from the mines in the Juneau and Sitka districts but does not assure the continued prosperity of the lode-mining industry, for the mines at Juneau are working on too small a margin between the value of gold recovered and the cost of operation to make it certain that they will be able to pay the continued increasing expense of mining. The only other large gold lode mine in Alaska is in the Sitka district, where operations in 1919 were on a somewhat larger scale than in 1918.

The most important event of the year bearing on lode mining in Alaska was the development of some large ore bodies in the Stewart River basin of Portland Canal, which marks the southeastern boundary of the Territory. So far as known, the only properties developed sufficiently to prove the value of these bodies are on the Canadian side of the international boundary but close to it. The same geologic conditions occur on the Alaska side of the boundary, where metalliferous lodes have long been known to occur and where many claims have been staked. The natural seaboard outlet for the Canadian as well as the American properties in the Stewart River basin is the town of Hyder, on the Alaska side of Portland Canal.

The lodes of this district, so far as known, consist of (1) disseminated deposits in fracture zones and (2) vein filling in well-defined fissures. Excitement has recently been caused by the finding of auriferous lodes carrying high values in silver; galena, tetrahedrite (gray copper ore), pyragyrite (ruby silver), and native silver are said to occur in these ores. There is reason to believe that similar deposits may occur in the Alaska part of the Stewart River Basin.

The small lode operations in 1919, several of them no more than prospects from which a little ore is being taken, are distributed as follows: One each in

the Ketchikan, Chitina, and Prince William Sound districts; three in Kenai Peninsula; five in the Willow Creek district; six in the Fairbanks district; and one in Seward Peninsula. The most active prospecting and development of gold lodes in 1919 was in the Willow Creek district, which lies adjacent to the railroad, where, however, no property has yet been opened up and equipped on a large scale. There is good reason to believe that lode mining in the Willow Creek district will make substantial gains in 1920. At Fairbanks lode mining and prospecting have almost ceased, the only operations being those of a few owners who continue a little development with the plan of blocking out ore to be mined when the railroad is completed. Incidental to this work a little ore is recovered and milled, and there are many small auriferous lodes in the Fairbanks district which can be profitably exploited when the economic conditions improve. The discovery of an auriferous lode, carrying also copper and silver, on Nixon Fork, in the Kuskokwim region, is reported. Some developments have been made on this lode and preparations are under way to mine enough of the ore for a mill test.

COPPER MINING.

Eleven copper mines were operated in Alaska in 1919, producing about 47,220,771 pounds of copper, valued at $8,783,063. The production of copper in 1918 was 69,225,000 pounds, valued at $17,099,000, and came from 17 mines. This curtailment of copper mining was due to the fall in the price of copper and the uncertainty of the market, as a result of which the larger mines decreased their output and many of the small ones were closed down. Throughout the war the small operator has been hampered by lack of shipping to transport his ore and of smelters to reduce it, conditions that have blocked the development of a number of properties and discouraged the copper-mining industry. Largely for these reasons there has been relatively little prospecting for copper during the last few years. Should the price of copper go up many small mines would resume operations and the larger ones increase their output. Under present industrial conditions there is not much likelihood of any great improvement during 1920.

Most of the prospecting for copper in 1919 was done in the Susitna Basin, tributary to the Alaska Railroad. A number of copper lodes of some promise have been found in this region, but they have not been sufficiently developed to prove their value. The availability of the Matanuska coal, which is especially adapted for coking, makes the outlook for a local copper-smelting industry in this region rather hopeful.

In southeastern Alaska the Rush and Brown mine was the largest copper producer. Copper was also produced at the Salt Chuck mine, better known for its output of palladium, and some ore was shipped from the Jumbo mine at Sulzer. The three large mines—Bonanza, Jumbo, and Mother Lode, of the Kennecott group—were the only producing mines of the Chitina district in 1919, though some development work was done on other properties. On Prince William Sound the Beatson-Bonanza and Ellamar copper mines were the only properties worked systematically throughout the year. Some ore was, however, also produced incidental to development work at the Fidalgo or Schlosser mine of the Alaska Mines Corporation, at the Fidalgo or Mackintosh mine of the Fidalgo Mining Co., and at the mine of the Ladysmith Smelting Corporation on Latouche Island.

MISCELLANEOUS METALS.

Most of the silver and lead produced in Alaska has been won as a by-product in mining gold and copper. Silver-bearing ore in the form of galena is widely distributed in Alaska, but until two years ago was little heeded. Since then the high price of silver has led the prospectors to search out some of the galena lodes, and as a consequence some promising discoveries have been made. The development of silver-bearing lodes in the Canadian part of the Portland Canal region has already been referred to.

During 1919 development work was done on galena ores in southeastern Alaska, in the Seward Peninsula, in the Yukon Basin, and probably in other regions. In course of this work some ore was produced, but, so far as known, only a few tons of test shipments were made. The information at hand indicates that the most promising discovery of silver-bearing galena was that made in the Kantishna district.

The silver output of Alaska in 1919 was about 625,708 ounces, of which some 488,034 ounces were recovered from copper ores. Alaska's lead output of 1919 is estimated to be 678 tons, practically all a by-product of the gold-lode mines.

The York district, of Seward Peninsula, continues to be the center of the tin-mining industry of Alaska. Here, in 1919, two dredges and one small open-cut mine were operated on placer tin, employing 25 men. Developments were also continued at the Lost River tin-lode mine in the same district, where about 25 men were employed. Some tin also was recovered in gold-placer mining in a few of the Yukon districts. Preliminary estimates indicate that about 56 tons of metallic tin was produced in Alaska during 1919.

No new deposits of placer tin have been discovered in the York district in recent years, and there is no certainty that this form of tin mining will be continued there when the deposits now being exploited are worked out. No tin placers which, under present economic conditions, will warrant exploitation for their tin alone, have yet been found in the Yukon districts. When costs of operations are reduced placer tin mining may be developed in the Hot Springs district. The distribution of the alluvial tin in this district justifies the hope that tin-bearing lodes may yet be discovered. Meanwhile, the best hope of the continuation of Alaska tin mining is based on the lode tin of the York district. The Lost River mine in this district is the only property sufficiently developed to justify the belief that it will soon become a producer, yet there are others in the district which deserve prospecting.

Some platinum was recovered in the mining of placer gold in the Seward Peninsula, Tolstoi, and Chistochina districts in 1919, but the quantity is unknown. The mining of copper ores at the Salt Chuck mine, in the Ketchikan district, which carry palladium and platinum, was continued, as in the previous year.

There was no production of tungsten, antimony, or chromite in 1919, and development work on properties carrying these minerals was practically stopped. Work was continued on the quicksilver deposit on the lower Kuskokwim River, and a new smelting plant was installed.

COAL AND OIL.

The most important features of the Alaska coal-mining industry in 1919 are (1) the continuation of systematic mining in the Matanuska field by the Alaska Engineering Commission, (2) the systematic prospecting of a lease held in the Bering River field, and (3) the beginning of the mining of the Nenana lignitic coal.

Mining and underground exploration was carried on throughout the year by the Alaska Engineering Commission at the Eska and Chickaloon mines, in the Matanuska field. Coal production from these mines was advisedly limited to the needs of the commission and near-by localities. At the Eska mine, which is a bituminous coal of low rank, about 150,000 tons of coal have been blocked out and some evidence has been obtained that there is an additional reserve of about 1,000,000 tons. At this mine the coal beds are not greatly folded, but some large faults have complicated the extraction of the coal. At Chickaloon, where there is very high grade bituminous coal, the beds are intensely folded and much faulted. These conditions increase greatly the cost of mining. The work of the commission has resulted in blocking out about 100,000 tons of coal.

No details are yet available about the developments made on the lease held in the western part of Bering River field, but extensive and systematic underground work has been done, and the results appear to have encouraged the lessors to continue. The coal at this locality is high-grade bituminous. Some developments were also continued in 1919 on a patented claim in the northeastern part of the field, where the coal is anthracite. A little coal has been mined at this locality and marketed at Cordova. The mine is connected with barge navigation on Bering River by a narrow-gauge railroad.

The connecting link of the Alaska Railroad between Fairbanks and the Nenana coal field was completed in 1919, and the Nenana lignite is therefore now available for use in the Fairbanks district, and should stimulate the gold-mining industry. Several thousand tons of lignite were produced at "Mile 366 mine" and other developments in the field are under way.

Small lignitic coal mines were operated in 1919 at a number of widely separated localities in Alaska, and their product was consumed locally. About 60,674 tons of coal, of which 15,721 tons were lignite, were mined in 1919.

The petroleum produced in Alaska in 1919, as in previous years, was limited to the only patented oil land of the Territory, which is in the Katalla field. The output was increased and drilling continued. In view of the probable early enactment of an oil-land leasing law, the interest in the Alaska petroleum fields has revived, and after this law has been enacted there will undoubtedly be something like an oil boom. Drilling at Yakataga, Katalla, Iniskin Bay on Cook Inlet, and Cold Bay on the Alaska Peninsula is certainly justified, and some other regions deserve investigation.

PUBLIC LANDS.

The records of the surveyor general's office show that during the fiscal year ended June 30, 1920, there were 18 township surveys, whole and fractional, surveyed, covering 612.28 miles; of these, 5 townships were on the Copper River meridian, 7 on the Fairbanks meridian, and 6 on the Seward meridian.

There have been surveyed in Alaska to date 152 townships, whole and fractional—88 on the Seward meridian, 46 on the Fairbanks meridian, and 18 on the Copper River meridian.

During the present surveying season the rectangular surveys will be extended along the Kenai Peninsula and along the Government railroad from both the Seward and Fairbanks ends. Surveys will be initiated in the region of McCarthy and on Strawberry Point, Icy Strait, and very probably on Kodiak Island. A surveying force is also in the field surveying homesteads and Indian allotments.

During the fiscal year there were approved 36 mineral surveys, embracing 169 locations, 21 forest homestead surveys, and 21 miscellaneous surveys made by United States deputy surveyors.

I renew my recommendations of the past two years for the consolidation of all the different branches of the General Land Office into one centralized office, so that all matters dealing with public lands in Alaska may be expedited. I also again recommend that the offices of surveyor general and secretary of the territory be separated. The two offices have nothing in common.

NATIONAL FORESTS.

After a long period of inactivity it begins to appear as though there is to be considerable development in connection with the national forests, particularly in southeastern Alaska. A number of companies interested in the manufacture of pulp and paper are negotiating for leases of timber, and when the offered leases can be smoothed out, so as to offer satisfactory terms, I look for the establishment of several mills adjoining constant water powers. The leases as now offered by the Forest Service cover a period of 30 years, with an allowed 2-year period for construction. The stumpage rate is set for the first 5 years and a maximum stumpage rate for the following 5 years. For the remaining 5-year periods the Forest Service reserves the right to fix the stumpage on prevailing timber rates in the district, but will fix no exact basis on which the revaluation will be made.

This is the stumblingblock. Past mistakes of the Government in enacting laws and regulations for Alaska which were practically confiscatory of investment already made have not lent confidence to prospective investors, and they insist that the basis for stumpage re-

valuation be announced. In their attitude I concur. I believe any company is entitled to know what the terms or maximum terms of their leases may be. The revaluation may be fixed with a high maximum price, subject to downward revision based on current timber prices, or it may be fixed on average profits with stumpage participating in the profits in its proportion to the cost of operation. It seems to me a short-sighted policy to keep out industry for fear that a proper price for future stumpage will not be received. The income tax will be with us always, and the greater the income of any company the greater will be the revenue to the Government.

Alaska timber is not adapted for all commercial purposes, but the Alaska spruce has many most desirable qualities. It is now being exported for car building and repair work; it is especially well adapted for airplane construction and the making of musical instruments. There is no reason why Alaskan forests should not maintain a number of good industries.

So long as we must have national forests, for the sake of better administration I trust the service may be induced to establish a district in Alaska in charge of a district forester, authorized to act in all matters concerning the forests. At present the district forester in charge of Alaska is located in Portland, Oreg., and can not of necessity keep in close touch with Alaskan problems. The delay incident to correspondence is often most annoying, besides which the attitude of an official who lives in Alaska is always different from one who does not know the country or its inhabitants.

A step the Government could well afford to take in the interest of Territorial welfare would be to transfer to the Territory all of the net proceeds for schools and roads arising from the sale of timber within national forests. The national forests are not subjected to surveys by the General Land Office and in consequence the Territory can not benefit from school lands, which would otherwise be a source of revenue.

The superintendent of the national forests in Alaska submits the following:

There are two great national forests in Alaska—the Chugach, comprising 5,130,201 acres, and the Tongass, comprising 15,449,539 acres.

The total receipts for the Tongass and Chugach National Forests for the fiscal year ending June 30, 1920, were $106,921.48. The total cost of administration of the two forests for the same period was $56,393.94.

The total number of applications received for forest homesteads on the Tongass Forest is 252, seven of which were received during the past fiscal year. The total number of applications received for lands within the Chugach National Forest is 412, only five of which were received during the past fiscal year. Patent survey is made by the Forest Service free of charge for all national forest homesteads just as soon as the applicant has complied with the homestead law.

The agricultural reconnoissance begun June 1, 1918, is being continued during the field season of 1920, and such areas as are found more suitable for agricultural than for other purposes will be opened to settlement and entry under the general homestead laws.

There are at present 801 occupancy permits in effect on the Tongass Forest. These permits cover a variety of uses to which national forest lands are made to serve the needs of the domestic and commercial population. Among the many uses are 88 canneries and salteries, 81 cabins for which no rental is charged, 4 cold-storage plants, 475 residences for which an annual nominal rental fee is charged, 7 sawmills, 1 whaling station, and 35 fox and rabbit ranches. There are 176 occupancy permits in effect on the Chugach National

Forest, covering free agricultural uses, canneries, fox ranches, salteries, residences, etc.

On the Tongass Forest there was a total of 264 timber sales made, covering 45,029,680 board feet of saw timber and piling, and 41,470,580 board feet were actually cut during the fiscal year. On the Chugach there were 112 sales, covering 7,034,270 board feet; 3,932,420 board feet of saw timber and piling were cut during the fiscal year. In addition to the timber sold on the Chugach, the Alaskan Engineering Commission and two other permittees cut approximately 4,147,470 board feet under free use. Considerable other free use is granted annually to settlers, who are privileged to secure what they need for domestic purposes at such points as are most convenient to them.

The water-power investigations continue under the supervision of Mr. G. H. Canfield, United States Geological Survey, in cooperation with the Forest Service. Stream-flow records of the larger potential power projects are now available, covering a period of four years, which afford reliable data for those interested in the development of water power for mining and manufacturing.

The Department of Agriculture, in cooperation with the Territory of Alaska, has definitely outlined a road-building program within the national forests of Alaska. Cooperative agreements have been approved and the following projects are now under construction by the Bureau of Public Roads:

Ketchikan-Wards Cove Road.
Portage Road.
Salmon River Road.
Juneau-Eagle River Road.
Cordova-Eyak Lake Road.
Quartz Creek-Russian River Road.
Katalla Road.

In addition to the roads, the Forest Service has completed pack trails or plank walks during the past, at an expense of $36,800, at the following points:

From the mouth of the Stikene River to Little Andrew Creek, on the Stikene, pack trail.
Hadley-Salt Chuck, Kasaan Bay, pack trail.
Sea Level, pack trail from tidewater to first lake.
Hoonah Village to Hoonah cannery, pack trail.
Bailey Bay to Bailey Bay Hot Springs, pack trail.
Tenakee, board walk through the village.
Warm Springs Bay, board walk from tidewater to springs.
Port Alexander, board walk through the village.
Craig, board walk through the village.

The general situation regarding the development of the pulp and paper industry within the Tongass National Forest in the near future is very encouraging. A constant effort has been made by the Forest Service to encourage the legitimate development of this industry. Many inquiries were made by pulp and paper manufacturers and others seeking information about water power, timber, manufacturing sites, etc. Several eastern manufacturing concerns have had engineering parties in the field all summer making surveys of water powers and tentative arrangements for the securing of suitable areas of tributary timber. The Forest Service has also maintained several crews in the field making estimates of timber and preparing detailed maps preparatory to entering into contracts with applicants.

A small pulp plant was started at Port Snettisham, which will be ready for the manufacture of pulp by next spring. A preliminary sale of 100,000,000 feet of timber was made to this company.

RESERVATIONS AND WITHDRAWALS.

So far as I am able to judge from the records of the surveyor general's office, there are 347 different active withdrawals and reservations of public lands in Alaska. Many of these reservations serve no useful present nor future purposes. In some instances reservations by one department seem to blanket reservations made by another. There has been a regular orgy of reservations and withdrawals in Alaska. I recommend that a committee, representative of the various departments interested, be formed for the purpose of

recommending restoration to the public domain of lands which are not needed for the purposes given in the orders of withdrawal. So drastic are the terms in some instances that it would be possible to bring criminal action against even innocent campers or explorers.

I see no necessity for continuing any of the so-called "bird reserves." There are many thousands of square miles set apart as bird reserves with the object primarily of protecting the nesting grounds of water fowl. The migratory bird treaty act now protects all water fowl from killing during the nesting season and restricts game bags during the open season.

The Yukon Delta Bird Reserve of approximately 20,000 square miles, an area as great as that of New Hampshire, Massachusetts, and Rhode Island was withdrawn for the purpose of protecting the nesting ground of the Emperor goose. This is merely one sample of some of the withdrawals.

NATIONAL PARKS AND MONUMENTS.

The Mount McKinley National Park is the one national park in Alaska. There are three national monuments—the Katmai National Monument and the Indian River National Monument at Sitka, under the National Park Service, and the Kasaan National Monument, under the Forest Service.

The Katmai Monument serves no purpose and should be abolished.

The monument at Sitka, containing many rare totem poles in beautiful natural settings, is receiving needed attention from the National Park Service, which is repairing the totem poles and doing what it can with the limited funds divertible to Alaska in the way of clearing the paths through the tangled cedar forest, etc.

At the Kasaan Monument are found wonderful totems now going to ruin. The poles should be repaired and preserved as a relic of past native art. Unfortunately many were recently destroyed by fire.

It is hoped, after being refused by Congress for several years, that appropriations may be forthcoming for the maintenance of the Mount McKinley National Park. The park scenery is classed among the most glorious in all of North America. The center of attraction is, of course, Mount McKinley rising 20,300 feet above sea level and about 18,000 feet above the surrounding country. On the foot hills of Mount McKinley are found some of the best game breeding grounds in Alaska. It is estimated that there are 10,000 nonmigratory caribou alone within the boundaries, but so far no money has been available for use in cutting trails or protecting the game. Tourist travel to the park will be a great asset to the Government railroad. I sincerely hope that the Service will this coming year be enabled to make a start toward establishing the park as a recreation center.

AGRICULTURE.

Agriculture, once so laughed at in Alaska, is yearly becoming more and more an established industry. The farmer of Alaska can not hope for many years to compete with the farmer of the States, but

as the population increases in other pursuits, farm products will become in great demand. Already the Matanuska and Tanana districts are furnishing practically all the vegetables required for local consumption. Forage for horses and cattle is being grown and even wheat, to mature which it was at one time thought impossible, is, through the efforts of the agricultural experiment stations, now a regular crop. Fairbanks has the first flour mill to be built in Alaska and it will be only a few years before that district will be supplying the whole of the interior and the towns along the line of the Government railroad with flour. The average yield of wheat at Fairbanks is 19.6 bushels to the acre. The farmers there are commencing to organize for the purpose of cooperation in buying machinery and equipment.

The sugar-beet industry is worthy of consideration for Alaska. The Alaska beets contain a larger percentage of sugar than do the beets of the States and can be worked during the winter months without refrigeration, which I am advised is most desirable. An established sugar-beet factory in the vicinity of Anchorage would be able to draw on the Matanuska Valley, the whole line of the railroad and Cook Inlet for the needed supply.

The live-stock industry has hardly progressed beyond the demands for dairy products, but eventually beef cattle will be grown in many parts of the Territory.

Farming would be expedited if the provisions of the Federal farm-loan act could be extended to Alaska. Farmers are experiencing difficulty in financing themselves during the time required for breaking in new land and for purchasing farming implements.

The growing of live stock should be encouraged by the loan of blooded cattle to the farmer for a period of years under regulations to insure proper care. A return to the Government to be made in kind for issuance to other stock growers.

EXPERIMENT STATIONS.

The agronomist in charge of the State Relations Service for Alaska submits the following data:

The work of the agricultural experiment stations has progressed during the past year as usual with most encouraging results. The season of 1919 was not on the whole favorable to agriculture. Nevertheless all the crops matured at Matanuska, Fairbanks, and Rampart experiment stations. The Fairbanks and Matanuska experiment stations are equipped with modern thrashing machines, and they not only thrash the grain raised at the stations but they cooperate with the farmers and thrash their grain also. Five thousand bushels of grain of all kinds were thrashed out at Fairbanks in the fall and early winter of 1919, and 1,000 bushels were thrashed at Matanuska. At Rampart there are no farmers in the immediate vicinity, but upward of 1,000 bushels grown by the station were thrashed out.

The most important new development is the purchase of milking shorthorn cattle to be placed at the Matanuska and the Fairbanks experiment stations. These were purchased in the State of Iowa and have now reached their destination. Some pure-bred Hampshire hogs were purchased for the Fairbanks station and some pure-bred Toggenburg goats. It has been demonstrated that certain types of hogs can be raised in the interior, and that milch goats meet a very distinct want. It is to aid in breeding up the stock already there that these animals have been introduced. Through the generosity of the Canadian Government the service has been presented with a pair of yaks from the herd maintained at Banff, Canada, and these have been placed at the Fairbanks station. They are young animals, and the object is to cross them with Galloway

cattle with a view to producing a hardy hybrid. New barns have been built at the Kodiak and Matanuska stations. The herd at the Kodiak station has been purged of tuberculosis and it is now in a most thriving condition.

The spring of 1920 was late all over Alaska, and for that reason the seeding has not been as extensive as it would otherwise have been, but it is expected that a normal crop of grain will be matured.

DISEASED LIVE STOCK.

At the session of the last legislature a bill was passed to prohibit the importation into the Territory of Alaska of diseased live stock and to provide for the eradication of diseased live stock now in the Territory, etc. Two thousand dollars was made available to carry out the provisions of the act. This amount has practically been expended in the inspection of stock in various parts of the Territory, with the result that 103 head of cattle were found to be tubercular and were destroyed, the territory covered being from the Yukon River to the Gulf of Alaska, including southeastern Alaska, and extending as far west as Kodiak Island. There are several large herds and numerous small herds in the area covered, as well as other parts of the Territory, that were not tested. Owing to limited funds inspection was confined to the dairies of the more readily accessible towns. The work done is a mere beginning, and it is hoped to procure an appropriation from the next legislature to carry on the operation as thoroughly as is being done in the States.

A few of the owners, upon finding tuberculosis among their herds, at once proclaimed that the country was to blame and doubted the possibility of raising healthy stock in Alaska. This is not the case. Weather conditions for the greater part of the Territory are no more severe, and in parts of the Territory much less severe, than in several stock and dairy States. There is an abundance of nutritious forage for from five to seven months of the year and quantities of pure water in all localities.

The veterinarian making the inspection notes that the majority of the owners of live stock realize the importance of raising purebred stock and that many are making every effort to improve their herds. This is being encouraged in every possible way by the United States agricultural experimental stations in the Territory.

Due to an oversight in drafting the act, no provision was made for Territorial or Federal assumption of any part of the loss entailed by the destruction of live stock. This was unfortunate, as the pecuniary loss to many was most severe. The legislature will be asked to rectify this oversight.

I am greatly indebted to the Department of Agriculture for allowing the services of the veterinarian attached to the experimental stations to be given without charge to the Territory other than expenses incurred in travel.

HARBOR IMPROVEMENTS.

The only work at present being conducted by the Engineer Corps of the War Department in connection with harbor or stream improvement is at Nome, where a jetty is being constructed at the mouth of the Snake River in an endeavor to create a harbor for small craft. Such a harbor will be of great benefit, not only to Nome but also to

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U. S. Fish & Wildlife Service
Seattle, Washington.

the Siberian trade when conditions in Siberia shall have become normal. Due to heavy costs of material and freight, it is thought an additional allotment will have to be made from any lump sum for rivers and harbors or that a special appropriation will be necessary to complete the work.

In the interests of navigation investigations are ordered made regarding the advisability of straightening and deepening certain channels in Wrangell Narrows and in Dry Straits and for the construction of a breakwater in the harbor at Wrangell to protect the fishing fleet against certain winds. The projects are all worthy ones.

A Government dock, warehouse, and small repair shop at Juneau for the use of all Government vessels is greatly needed. Under present conditions Government vessels must tie up to commercial docks, from which they may be ousted at any moment by the arrival of the regular liners. The construction of a Government dock would be of great assistance to ships of the Navy, Army, Coast and Geodetic Survey, Lighthouse Service, Bureau of Fisheries, Forest Service, Coast Guard, Customs, as well as to the boats of the game wardens and special officers for suppression of the liquor traffic. A warehouse and repair shop are constantly needed.

COAST AND GEODETIC SURVEY.

The Coast and Geodetic Survey should receive every possible support from Congress, as no development in coastal Alaska can be undertaken without correct charts of the harbors and waterways. Some of the worst wrecks in Alaska have occurred in uncharted waters. Many of the present charts are merely adaptations from the works of the early explorers and navigators. The policy of the Coast and Geodetic Survey is to expedite the surveys as funds are made available.

The general plan for surveys of the navigable waters of Alaska is a continuation of the much-needed surveys of the commercial routes through the inside passages and along the outer coast.

There is immediate need for the completion of the wire drag surveys through southeast Alaska covering the main arteries of commerce from Dixon Entrance by Ketchikan, Wrangell, and Juneau to the head of Lynn Canal, thence through Chatham Strait, Icy Strait, and Cross Sound. So far this is about 60 per cent completed. On completing the main thoroughfare the side channels, harbors, bays, etc., will be taken up in order of their importance.

The hydrographic and topographic surveys now in progress along the outer coast northward from Dixon Entrance will be extended northward to a junction with completed work in the vicinity of Sitka and Cross Sound, and carried northward from there to Yakutat Bay and thence westward. This will include all the offshore soundings out to the 1,000 fathom curve. A modern surveying ship of the *Surveyor* type will be needed on such work, as there are few harbors of refuge between Cross Sound and Prince William Sound and the vessels will necessarily have to stand out to sea during the stormy weather.

The much needed surveys in Prince William Sound are to be completed when a vessel suitable for work in this fairly protected area becomes available. From Latouche and Montague Islands westward to

Shelikof Strait surveys, which are totally lacking along the exposed coast, can only be accomplished by seagoing surveying vessels with facilities for placing subparties in camp and remaining outside during bad weather.

The steamer *Surveyor*, constructed especially for such work, is now engaged on the outer coast west of Shelikof Strait and will obtain during the present season much needed information relative to the approaches to the bays and anchorages bordering the oil field on the south side of the Alaska Peninsula.

Scattered surveys have been made westward from Shelikof Strait and in the Bering Sea. Complete hydrographic and topography surveys must be made, particularly of the approaches to the passages and ports, where the needs of commerce demand the protection given through adequate knowledge of the depths and location of dangers. A study of the currents and tides will be made as a further safeguard for navigation.

Scattering surveys have been made in a strenuous effort to meet the needs of commerce, but the industries have far outstripped the progress of these surveys, wholly through lack of sufficient personnel and equipment with which to keep pace. The various activities along the coast are scattered, and it will require a large increase in the present surveying force to coordinate the work that now lies in groups from Dixon Entrance to Bering Sea.

The making of surveys and supplying of reliable charts for the urgent needs of Alaska are wholly depending upon the surveying vessels and wire-drag launches available for the work. In order that the proposed work can be carried on in a measure, the survey is in immediate need of two modern surveying vessels of the *Surveyor* type, a lighter vessel for work in Prince William Sound, and four especially designed launches for carrying the heavy equipment used in towing and handling the wire-drag apparatus.

FIELD STATION AND BOATHOUSE IN ALASKA.

Since 1898 practically the entire facilities of the Coast and Geodetic Survey on the Pacific coast of the United States have been employed in Alaska in an effort to keep pace with the growing commerce carried on with its coast ports. During the period from 1907 to 1915 three of the survey's vessels were employed in southeast Alaska in an effort to obtain by means of adequate surveys accurate charts to assist in the commercial development of the country. To assist in this work launches were employed for the development of shoal areas and ledges and to search out intricate areas where the larger vessels could not be maneuvered. A small boathouse on the naval reservation at Sitka was used to house these launches during the winter seasons, and the naval station at that place was used as the base station for surveying operations up until 1907, when it became necessary to remove the launch equipment to a place more accessible to the working grounds in southeast Alaska. Ketchikan was selected for this purpose and a boathouse constructed at Metlakatla, on Annette Island, for housing the launches and storing such of the equipment as it was found advisable to leave in Alaska.

In 1914 wire-drag work was begun in southeast Alaska, and from 1915 to the entering of the United States into the World War two

parties were employed. The launches used upon the work were chartered makeshifts remodeled to serve as best they could and were returned to the owners at the end of the season. At the termination of the war relief came in a measure to this very unsatisfactory way of procuring equipment. The Navy supplied the survey with a number of large launches, which were made suitable after alteration for assisting in the wire-drag work.

The additional equipment made it possible to resume survey work with increased activity in southeast Alaska, and the necessity for providing suitable space for housing the equipment at the most advantageous point now presents itself. There are to-day four large steam launches and six large motor launches which will remain in Alaska during the winters, as it is not practicable to tow them or run them south when the approach of winter weather makes it no longer economical to attempt wire drag and other survey work. To these will be added during the coming year three gas launches, which are now stored in Seattle. The repairs incident to the upkeep of this equipment, together with repairs to the wire-drag apparatus, can only be accomplished after the close of the surveying season and must of necessity be completed before the opening of the season in the early spring.

There should be the most serious thought given to the care of this assembled equipment, its upkeep, and its apportionment to parties given the task of sweeping the channels with the wire drag and extending the surveys to meet the need of commerce. With this in mind and the paramount importance of selecting a site suitable for a base, authorization will be sought for the construction of suitable boathouses, ways for hauling out, and a wharf that can be used by the larger vessels for storing coal and supplies needed in the field of operation. If authorization can be secured all plans and specifications will be prepared, bids obtained, and the construction begun at once.

The rapid development of Alaska along commercial lines is well illustrated by the request for surveys and for information pertaining to areas where newly selected sites for proposed industries have been chosen. There are, especially in southeast Alaska, some of the finest water-power sites on the Pacific coast, which have attracted the attention of capital with a view to establishing pulp mills and other industries. The water approach to these sites must of necessity be surveyed, dragged, and the dangers charted. The most important of Alaska water-power projects at this time, and one which has been developed to a considerable extent, is located at Port Snettisham. It is located in the midst of a well-timbered section and surrounded by other valuable material resources easily accessible. An urgent request for a more complete survey of the approaches to this important site has been received through one of the survey parties now operating in its vicinity.

To keep more closely in touch with the needs for such surveys, it is proposed to establish in southeast Alaska a permanent field station of the Coast and Geodetic Survey. This will enable the public to obtain advance information of the navigable waters where surveys are partially completed or totally lacking. With a survey officer available at such a station, small surveys and examinations can be made at once and much valuable information obtained which will

enable commercial interests to locate at points accessible to the passenger and freight steamers plying between Alaska and United States ports.

INTERIOR SURVEYS OF ALASKA.

There is urgent need in Alaska to-day of a more comprehensive plan of survey. Existing surveys have been governed in location by the urgency of local demands. To every intelligent user of maps or of surveying data there is evident the necessity for some system of control for tying together local surveys.

The history of the development of the general survey of the United States is a sufficient warning against permitting local surveys to outstrip the control surveys. Litigation costing millions of dollars had its origin in the poorly controlled surveys of the South, Southwest, and West, and this litigation was not alone between individuals but between corporations, counties, and States. Boundary commissions are still in existence to settle disputes concerning boundaries between States, while existing surveys have been adjusted and readjusted as each successive contact was made with other surveys on their boundaries.

One other requirement is necessary to avoid wasted effort, delays, and costly later adjustments. Alaskan surveys must not only be bound together as a whole but they must also be connected in their proper geographical position with the remainder of the surveys of the continent. The United States, Canada, and Mexico have all adopted the same basis for their horizontal control, which is called the North American datum. To provide for this connection observations have been begun by the United States Coast and Geodetic Survey with the cooperation of the Canadian Government on a chain of primary triangulation to reach from the vicinity of Seattle, through southeast Alaska, to the upper portion of the Yukon River, where it crosses the Alaska boundary. From that point lines of triangulation will extend through Alaska over selected routes.

This scheme of triangulation will lead northward across Dixon Entrance, thence up Clarence Strait just eastward of Ketchikan, passing to the eastward of Kupreanof and Admiralty Islands, and up Lynn Canal to where the scheme again crosses into Canadian territory.

With a connection to the continental triangulation thus provided for at the Alaskan-Canadian boundary near Eagle, primary triangulation and precise levels should be extended down the Yukon to the Tanana at the same time that similar control is being run over the line of the Alaska Railway from Cook Inlet to a junction with the Yukon line near Fairbanks. At Cook Inlet, the primary control would connect with an extensive belt of tertiary triangulation reaching east to Prince William Sound, which would thus be connected to the North American datum. This one line would also connect up many important isolated surveys of the Land Office and the Geological Survey in the interior of Alaska.

The many detached harbor and channel surveys in southeast Alaska will be rapidly increased in number by the opening up of new mines, by the investigation of water-power projects and sites for wood-pulp factories. Neither future nor existing surveys can be

placed in their proper position on published charts until primary control is established.

The section surveys by the Land Office and the topographical surveys and mineral investigations of the Geological Survey in the interior of Alaska are being greatly retarded by the lack of primary triangulation. The regions bordering the Yukon, Susitna, Copper, and Tanana Rivers are the greatest sufferers in this respect.

The Coast and Geodetic Survey for many years has asked for an appropriation to begin this work and promises a vigorous prosecution of it as soon as funds can be secured.

The Director of the Coast and Geodetic Survey spent part of the field season of 1920 in Alaska investigating the most urgent needs of the country and is thoroughly impressed with the urgency of surveys as connected with the industrial growth of the Territory.

I heartily recommend increased appropriations to carry out the plans for future operations.

AIDS TO NAVIGATION.

Minor aids to navigation are being established at a fairly satisfactory rate, but for the larger projects, although some of them have been authorized by Congress, appropriations have not been forthcoming. I particularly wish to draw attention to the need of improved lights with added fog signals at Cape Spencer, Cape Hinchinbrook, and Point Retreat. These points have long been dreaded by mariners and should have proper lights and signals. Particularly at Cape Spencer is a high-powered light and strong siren needed. Cape Spencer marks the opening from the Gulf of Alaska into Cross Sound and the inside passage, a route used by practically all vessels sailing to southwestern Alaska. Fogs and storms are here very prevalent and unless the cape can be seen a steamer must lie outside until clearing weather permits an entrance. At many other points along the coast a master can determine his position from soundings, but at Cross Sound there is no regularity of bottom, rendering this mode of reckoning ineffective.

The Commissioner of Lighthouses submits the following information:

Twenty new lights were established in Alaska by the Lighthouse Service since June 30, 1919. Five lights were changed from fixed to flashing, and 1 gas buoy, 2 gas and bell buoys, and 14 buoys of other types, and 11 beacons were established.

Before the present season is over several new lights will be established, as well as a number of unlighted aids. A considerable number of new aids to navigation will be installed before the close of the fiscal year ending June 30, 1921.

The total number of aids to navigation in Alaska, including lights, gas buoys, fog signals, unlighted buoys, and daymarks in commission at the close of the fiscal year ended June 30, 1920, was 513, including 197 lights and 10 gas buoys, representing an increase of 160 lighted aids since June 30, 1910, or over 432 per cent.

The sundry civil act approved June 5, 1920 (Public, No. 246, 66th Cong.), authorized the establishment and maintenance of post-lantern lights on the Yukon River and its tributaries.

Progress has been made in the construction of a lighthouse depot for the Alaska service at the district headquarters, Ketchikan, under an appropriation of $90,000, approved July 1, 1918, and an additional appropriation of $12,000 by the second deficiency act, fiscal year 1920, approved March 6, 1920, toward the completion of the wharf and storehouse. To complete the entire project for the lighthouse depot, including a shop building, keeper's dwelling, roadway, etc., a further appropriation, estimated at $70,000, will be necessary.

An appropriation of $75,000 by the sundry civil act approved July 19, 1919, was made for establishing new aids to navigation and for improvements to existing aids in Alaska, work on which has been in progress during the year. Recommendations have been submitted during the past year for a light and fog signal at or near Cape Spencer, $150,000, and for new aids and repairs and improvements to existing aids in Alaska, $152,000. By act authorizing certain aids to navigation, etc., in the Lighthouse Service, approved June 5, 1920, Congress authorized fog-signal improvements, etc., at Point Retreat and Cape Hinchinbrook light stations, $32,500, but no appropriation has been made for this work.

INTERNATIONAL BOUNDARY SURVEY.

Due to recent mining and prospecting activities both in Alaska and British Columbia, it became necessary to more clearly define the international boundary in certain localities. American and Canadian parties were placed in the field on Portland Canal, the Unuk and Stikine Rivers.

WASHINGTON-ALASKA MILITARY TELEGRAPH SYSTEM.

A great factor in the development of Alaska is the military cable, telegraph, and radio systems. Mails are so slow and uncertain that almost a disproportionate use is made of telegraphic communications. The United States Signal Corps conducts a commercial telegraphic service to the main centers of population throughout Alaska.

While the exact costs of operation and maintenance can not accurately be obtained, I am advised that the organization is self-supporting. During 1919 there was transacted a total business of $565,258.74, of which $426,756.77 is chargeable to tolls over the system. Expenditures amounted to $92,686.40, which included $45,000 for purchase of radio stations, supplies for the system for the year, all repairs, maintenance, and operation. Salaries, allowances, and cost of equipment and supplies, however, are not figured in the above. There are three officers in the organization, an average of 252 enlisted men, and 48 civilians.

The Chief Signal Officer and the Secretary of War have recommended extensions of the systems, but, unfortunately, appropriations for the establishment of new stations could not be procured. I sincerely trust new stations may be authorized in accordance with the estimates submitted by the War Department for this self-sustaining service. No more constructive operation can be undertaken by the Government. At present stations are badly needed at the following places: Hyder,[1] on Portland Canal; Seldovia, on Cook Inlet; Nusha-

[1] Commercial station established now.

gak, on Bristol Bay; Bethel, on the Kuskokwim River; and Bettles, on the Koyukuk River. It would also be well to have stations at Teller, near Cape Prince of Wales; Point Hope, on the Arctic; and a station in Kotsebue Sound.

During the summer months communication is kept up with radio stations maintained by the various companies engaged in fisheries. The system comprises 2,676 statute miles of submarine cables and 799 statute miles of telegraph lines.

List of stations in Alaska.

Beaver Dam	Telegraph.	Kotlik	Radio.
Birches	Do.	Koyukuk	Telegraph.
Brooks	Radio.	Louden	Do.
Chena	Telegraph.	McCallum	Do.
Circle	Radio.	McCarty	Do.
Copper Center	Telegraph.	Melozi	Do.
Cordova	Cable.	McGrath	Radio.
Craig	Radio.	Nenana	Telegraph.
Donnelly	Telegraph.	Nome	Radio.
Douglas	Cable.	Nulato	Do.
Fairbanks	Radio and telegraph.	Paxson	Telegraph.
Fort Egbert	Do.	Petersburg	Cable.
Fort Gibbon	Do.	Richardson	Telegraph.
Fort Liscum	Telephone.	St. Michael	Radio.
Fort Yukon	Radio.	Salcha	Telegraph.
Gulkana	Telegraph.	Seward	Cable.
Haines	Cable.	Sitka	Do.
Hogan	Telegraph.	Skagway	Do.
Holy Cross	Radio.	Tiekhell	Telegraph.
Hot Springs	Telegraph.	Tolovana	Do.
Iditarod	Radio.	Tonsina	Do.
Juneau	Cable.	Valdez	Cable and telegraph.
Ketchikan	Do.	Wortmans	Telegraph.
Kokrines	Telegraph.	Wrangell	Cable.

NAVAL COMMUNICATION SERVICE.

There are at present nine naval radio stations in Alaska, namely, St. Paul, St. George, Dutch Harbor, Kodiak, Seward, Cordova, Sitka, Juneau, and Ketchikan. The number of men on duty at all the stations is approximately 100. The number of men attached to the individual station ranges from one attached to St. George to 30 men attached to Cordova.

The operation of these stations is under the commandant thirteenth naval district and is administered by the district communication superintendent, Cordova communication district, with office at the Cordova receiving station (mile 7, Alaska).

Stations are maintained by the Puget Sound yard. For this maintenance work a special radio tender, the U. S. S. *Saturn*, is employed. A number of workmen are taken to the several stations to repair existing apparatus and do such new construction work as may be necessary.

The naval communication service handles commercial traffic to any and all points that are served by the radio stations. In many instances the radio service is in competition with the Army cable. The rates have been made the same for both the cable and radio. This uniformity of rates makes it very easy to route the traffic via radio in case of a cable break or by cable in case of a radio breakdown.

In general the Alaska stations handle mainly commercial traffic and Government traffic of class B. All commercial traffic is domestic count, 10-word minimum. The rates for southeastern Alaska, such as Juneau, Ketchikan, and Sitka are 10 cents a word, 10-word minimum. For Cordova and Seward the rate is 15 cents a word, 10-word minimum. For southwestern Alaska, such as Kodiak, Dutch Harbor, and the Pribilofs, the rate is 19 cents a word, 10-word minimum.

At present all traffic for points east of the one hundred and thirty-eighth meridian are routed through the Astoria-Ketchikan circuit. This is the old Marconi spark circuit. All traffic to points west of this meridian are routed via the Keyport-Cordova arc circuit.

All the Alaska stations are spark stations except that Cordova and St. Paul have both arc and spark installations.

During the past year communication was established between St. Paul and Vladivostok and a limited amount of commercial traffic accepted. Owing to adverse operating and atmospheric conditions, this circuit has not come up to expectations and has been temporarily closed. Service will doubtless be opened in the fall, when more experienced personnel and more favorable weather conditions may be expected.

Emergency communication with the Russian station at Anadyr has been held from St. Paul throughout the year, and authority for limited commercial communication over this circuit is now being published. This service will be extended only to Alaska, and parties in vicinity of the Northwest who may have business connections in northern Siberia. Messages addressed to Anadyr must be paid and all messages from Anadyr must be paid for on receipt. Charges will probably be 12 cents per word beyond St. Paul.

The station at Cordova is being overhauled and a 60-kilowatt transmitter installed. With this increase in power it is expected to obtain a fast and efficient circuit between Puget Sound and Cordova.

NAVAL PATROL.

As in previous years during the salmon fishing seasons a small naval patrol, consisting of the Eagle boat *57*, the sub chaser *294*, and sub chaser *310*, was assigned to Alaskan waters. The *57* lost her propeller on the way north and the *310* was laid up practically the entire season on account of engine trouble, thus leaving the *294* as the only effective boat. A naval patrol has an undoubted moral effect but is of little other use unless in constant service against fish piracy and stream fishing. To be an effective force there should be approximately 20 small ships stationed in Alaskan waters with given police powers. Should a Territorial police force be provided, equipped with suitable craft, an expensive naval patrol would not be necessary.

During the winter season there is constant need, in Alaskan waters, for a ship capable of going anywhere in any weather. Such a ship is almost a necessity. In winter transportation facilities are cut to the minimum and in an emergency it often happens that no methods of travel are at hand. A ship is needed to be available for quarantine duty, rescue and relief work, and for the use of Federal and Territorial officials.

ENFORCEMENT OF PROHIBITION.

During the fiscal year there were 37 arrests made by the special officers for the suppression of the liquor traffic among the natives, for violations of the Alaska bone-dry law. There were 27 convictions and 10 acquittals. Fines totaling $8,145 were collected and jail sentences aggregating 27 months and 10 days were imposed. Other arrests were made by the marshals of the several judicial divisions and convictions obtained which are not included in the above.

While the designation of the special officers has never been changed, still since prohibition has been in effect in Alaska the officers have been used in the suppression of all liquor traffic. An annual appropriation of $15,000 is provided, which allows of the employment of four special officers, one in each of the four judicial divisions. I am estimating for double the amount, as four men can not begin to enforce the law passed for Alaska by Congress. Liquor is finding its way into Alaska from British Columbia and distillation processes are becoming well known. Bootlegging seems to be increasing as private stocks become exhausted.

The passing of the open saloon has had a most beneficial effect and very few people would want a return to old conditions. Savings accounts have greatly increased and families formerly neglected by the husband and father are now well cared for, but the drastic provisions of the bone-dry act have made lawbreakers of a large proportion of the population otherwise law-abiding.

It would be well to extend the provisions of the Volstead Act to Alaska, particularly as applied to the use of liquor for medicinal purposes. During the epidemics of influenza doctors were frantically endeavoring to procure whisky for their patients seriously ill with pneumonia. They tell me many lives could have been saved had whisky been available during the emergency.

LAW ENFORCEMENT.

I have in the past recommended the establishment of a Federal police force for the Territory. I earnestly renew my recommendation. For the enforcement of law we have now—

Deputy United States marshals.
Game wardens under the governor.
Fur wardens under the Bureau of Biological Survey.
Special officers for the suppression of the liquor traffic among the Indians, under the governor.
Fish wardens under the Bureau of Fisheries.
Forest rangers under the Forest Service.

There are fine men in each service, each though acting independently of the others and each taking little interest in any law enforcement except for the one service in which he is employed. How much more effective would a mobile force be combining all police activities? I estimate that 150 to 200 trained men can take over the entire policing of the Territory, performing more efficient, effective, and economical duty than can the present uncorrelated services. In addition to the enforcement of law a police force would be at all times available for quarantine duty, the regulation of health and sanitation, search for lost persons, and for rescue work. Those States

having police forces have found that crime has decreased and that industry has increased. Labor, at one time opposed to the organizations, fearing they would be used for quelling strikes, is now seemingly in full accord with police activities, having seen that they take no sides in any dispute, merely insisting that order be maintained. No law-abiding citizen need fear police for, on the contrary, they will be found to be of constant help. I would have the force so constituted as to be absolutely free from political influence.

During the fiscal year, of 61 precincts having judicial officers, reports were received from 32, 6 of which reported no criminal cases brought before the court, while 26 reported the trial of 647 cases, with convictions obtained in 319 instances; $36,698.50 was collected in fines and 142 jail sentences were imposed.

Included in the 31 precincts rendering no report is the relatively important town of Anchorage. So, it may be assumed, that there were not less than 800 cases before the courts.

Many offenses against the law are reported which are impossible to investigate under the present system and many cases brought to trial are preventable misdemeanors. To my mind prevention of crime is more desirable than punishment after the commission of an offense. Ignorance of the law is the cause of a number of arraignments. A police force, in addition to its other duties, is an educational body for this class of unwitting offenders.

The United States commissioners are appointed by the judges of the four judicial divisions. Owing to the small emoluments connected with the office, suitable commissioners are not always obtainable. The office should be made attractive, especially in the important centers, where the magistrates should receive a salary instead of being dependent upon fees to the allowable limit of $3,000.

ALASKA INSANE.

Under a contract with the Secretary of the Interior the legally adjudged insane of Alaska are cared for at the Morningside Hospital, near Portland, Oreg., the contractor being the Sanitarium Co.

On the expiration of the old contract, January 20, 1920, a new agreement, on a sliding scale for the ensuing five-year period, became effective. The contractor had estimated that as the war had ceased there would be a speedy return to normal prices and estimated the maintenance costs accordingly. Fortunately, there existed a clause in the agreement which would allow an increased scale when approved by the Secretary of the Interior. On recommendation from the Secretary, Congress fixed the price to be paid the contractor at $45 per month for each patient. I do not consider this sufficient to cover proper care of patients, food, clothing, plant investment, etc., and recommend an increased payment based on maintenance costs at St. Elizabeths, the Federal asylum near Washington, plus a reasonable allowance to cover investment and profit.

In April of this year I inspected the Morningside Hospital, arriving there unannounced. I asked to be immediately taken to the wards so as to see the patients as they are every day when not expecting visitors. I examined every part of the establishment and interviewed patients and doctors. I found that the patients were well treated and had little complaint to offer; the food is plain but

wholesome; everything was scrupulously clean. Some of the wards seemed overcrowded, but this has since been remedied at my request by moving a number of the convalescent patients to the parole cottage.

During the summer months the patients can indulge in outdoor life and exercise by working on the farm, but in the winter they have little to occupy their time. I recommend that there be given courses in vocational training. I discussed this with the physician in charge and it seems that he has already given serious thought to this. He states that organized labor is averse to institutional production in most lines, but as the toy industry has not been developed to any great extent in the United States there would not be any great opposition to toy manufacturing. To establish an instructor at Morningside, together with the requisite equipment and material, would cost approximately $5,000. I recommend the appropriation of this amount.

I also recommend that insane patients of homicidal tendencies be confined at St. Elizabeths Hospital, where provision is made for this class of insane.

While the sanitarium company is undoubtedly living up to its contract in good faith, still I believe that the insane of Alaska should be cared for in a governmentally operated asylum where the question of profit does not enter into calculation. Such an asylum might well be located at some central point in Alaska.

On June 30, 1919, there were 203 insane patients in the hospital. On June 30, 1920, there were 206, an increase of 3 during the year. There were 52 patients received during the year, 10 were deported by the United States Immigration Service, 18 were discharged, 3 eloped, and 18 died.

GAME AND GAME LAWS.

In general the game situation is fairly satisfactory. In the interior of Alaska game seems to be on the increase, particularly caribou and moose, although what I call the northern herd of about 60,000 caribou is reported to be somewhat depleted, due to overhunting by natives after last year's fish shortage. The migration of the international herd of about 300,000 animals was split into a greater number of runs, possibly due to mining activity on the Stewart River.

On the Kenai Peninsula the moose herd is reported to be larger than the gradually decreasing game country will support and with a disproportionate number of bulls to cows.

On the Alaska Peninsula, I am told, the caribou herd is decreasing somewhat, due to unseasonal shooting by oil prospectors and some of the cannerymen and fishermen. The last sundry civil appropriation act carried a slight increase for wardens in Alaska enabling me to appoint a warden for this section.

In southeastern Alaska deer are increasing on the islands and would increase still more rapidly could I give adequate protection against the fishing fleet from Puget Sound and from wolves. Goats are holding their own. A shift has been made in the wardens of the interior so as to have one warden in the vicinity of the Mount McKinley National Park until estimated appropriations are available

for the National Park Service. Mount McKinley National Park will become the great game refuge and interior game breeding ground when laws can be properly enforced. There are now 11 wardens reporting to the governor, exclusive of the recently appointed game or fur wardens who report to the Department of Agriculture. Unless there should be a police force organized for the Territory an increase to 50 wardens would not be too great.

By a recent act of Congress, jurisdiction over the fur-bearing animals has been transferred from the Department of Commerce to the Department of Agriculture which has nominal jurisdiction over game animals. This action eliminates one unnecessary bureau in the departmental scheme of confusion, but no control of game or fur bearers from Washington can ever be effective. The people of Alaska demand Territorial control of game and should have it. The present laws are poorly devised and ineffectively executed, due to lack of funds. I have endeavored to procure assistance from the principal conservation societies of the East in the enactment of proper laws and have a generous agreement from some of them, notably the conservation committee of the Camp Fire Club, and the president and some of the members of the Boone and Crocket Club, but ignorant propaganda seems to have so far blocked, and will probably continue to block, the enactment of remedial laws, with the consequent depletion of game.

One of the great stumbling blocks in the getting together of Alaskans and the eastern conservationists (most of whom have never been to Alaska) is over the question of protection for brown bears. Brown bears are claimed to be unique among bears and a relic of a prehistoric age, hence they should be protected. It is also claimed that they offer a great inducement to sportsmen to visit Alaska who spend money within the Territory and perhaps become financially interested. On the other hand, Alaskans know that brown bears are dangerous to life; that they attack humans without warning; that they are destructive to sheep, cattle, and property. I have on my desk a photograph of a man who was attacked by a bear without warning. There are 83 wounds ranging from short incisions to one which tore off the whole back of his head. I have an entire file of authentic instances of brown and grizzly bears attacking men, killing game and fish, destroying caches. And these are the animals nonresidents insist should be protected. I will admit that two Alaskans have written me that these bears should continue to be protected, but the writers are sportsmen who live in towns and enjoy their yearly outings when a great hide can be brought in as a trophy of the chase. One of them admits he knows of four instances of unprovoked attack. I do not believe that sentiment should interfere with development. It is claimed in the East that it is desired to remove protection from brown bears so as to commercialize the hides. I have no doubt that some of the people who make the statement really believe this bugaboo story, but as a brown bear or grizzly bear hide only brings in the neighborhood of $15 or $20 and as a hunter may easily spend $50 and a week's time to bring one in, I hardly think any really intelligent person is convinced.

If the conservationists and the sportsmen's societies are really in earnest about protecting Alaska game they can render great service, not by merely attacking the integrity of all Alaskans, from the gover-

nor down, but by assisting in procuring game laws, in the enactment of which the will and the interests of Alaskans are consulted; by assisting in procuring appropriations for warden service, and by studying conditions on the ground. As far as I can find out, there have been only three men of all those in the East seemingly interested who have ever made any attempt to help in the matter of wardens, and they are men whose names seldom appear in print. At my request they appeared before the House Committee on Appropriations with well-presented pleas.

During the past year a representative of the Bureau of Biological Survey has been stationed in Alaska. I think his reports will do much to clear up some of the fog existing east of the Mississippi River. The chief of the bureau is also making a trip throughout the country.

As there is confusion existing in law enforcement brought about by the existence of two separate warden forces, I recommended that the governor be relieved from any further activity in connection with game conditions and game wardens and that entire jurisdiction be vested in the Department of Agriculture. Such action will be quite in line with other policies of long-distance administration for Alaska; the governor will be spared a great deal of personal abuse and hard work; the ultraconservationists will be able to put on the statute books almost any sort of foolish law, impossible of enforcement; no one will attempt to obey any game law, so all will be happy and satisfied.

As required by law I shall cover the game situation fully in my report to the Secretary of Agriculture.

FISHERIES AND FUR-BEARING ANIMALS.

Alaska's at present most important industry is seriously menaced. There must be speedy action of sorts taken by the Government or the salmon-fishing industry, normally furnishing trade to the United States in the sum of approximately $50,000,000 annually, will be slowly wiped out. If for no other reason than a selfish one, the Government should take immediate steps to protect its own revenue of many millions of dollars annually. The pitiful amount now appropriated for the protection of Alaskan fisheries is so inadequate as to be of little effectiveness.

In response to questionnaires sent for statistical purposes to 134 corporations interested in fisheries, replies were received from 38. Of these 38, 27 reported having paid Federal income tax in 1917 of $3,379,875.46, and for 1918, 28 companies reported having paid $1,944,616.17. I have no means of estimating the income tax paid by the 96 companies not answering the questionnaires, but it must at least have equaled the amounts reported. In 1919 the salmon pack was only about two-thirds that of 1918, but a partial report of the canneries to the Territorial treasurer shows the profits of those reporting to have been considerably over $2,000,000. Present indications are that the pack for 1920 will be less than that of 1919. It is the last third of the pack, lacking in 1919, which usually yields the profit. It does not require very much mathematical ability to demonstrate the loss to the Federal Treasury as a result of inadequate laws and the nonenforcement of such laws and regulations as now exist. Under present conditions of neglect I estimate that fishing in Alaska will not be profitable for more than five years, if that long. Due to

overfishing both in and outside of salmon streams in 1918, 1919, and 1920, the cyclic return of salmon spawned in those years is becoming, and will become, less and less. As the runs decrease, newly devised and increased numbers of floating and fixed gear further decrease the escapement of spawning fish. It is noted with apprehension by the Territorial fish commission that there is a disproportionate number of male to female fish ascending the spawning streams. In 1919 the proportion was 4 males to 1 female. In 1920, 11 males to 1 female. The theory advanced by the Territorial commission is that the female being heavy with spawn and not as agile as the male fish is unable to dive below the floating traps and seines.

I find that the canners are becoming justly alarmed over the outlook as are the independent fishermen. Each side blames the other for the salmon shortage. As a matter of fact, both sides are right. It is a case of everybody grabbing while the grabbing is good. I believe that the salmon of Alaska, if properly protected and propagated, will indefinitely permit of the packing of 4,000,000 cases per year and the shipment of 10,000,000 pounds put up in other ways.

Herring packing is not flourishing as it should. Scotch and Norwegian competition, unless subjected to a protective tariff, will not allow the profitable sale of the local product in the eastern markets.

Some of the minor fishing industries show healthy increase in exports, notably in shrimps and canned clams.

An increasing amount of fertilizer from fish offal is being manufactured. I believe it would be profitable to utilize a still greater amount of the present waste.

I recommend that an agent of the Bureau of Fisheries be permanently stationed in Alaska, with full power to act for the bureau in all matters. In the administration of the fisheries from Washington an unbiased viewpoint is not always presented and acted upon. The chief administrative official should be in constant touch with all phases of the fisheries situation.

TERRITORIAL FISH COMMISSION.

While the Territory, under the terms of the organic act, is forbidden to pass any regulatory fish laws, still the legislature, in an endeavor to prevent an actual exhaustion of the salmon in Alaska, has provided for the creation of the Territorial fish commission, the establishment of a fish hatchery, and for the clearing of salmon spawning streams.

A small hatchery capable of handling 12,000,000 eggs has been established at Juneau and placed in charge of a capable fish culturist. The commission is conducting experiments along new lines. It does not believe that the hatching and releasing of tame salmon fry gives the young fish the same chance of escaping from predatory fish as fry hatched under more natural conditions, hence the eggs in the hatchery are only brought to the eyed stage, then planted in the sands and gravels of lakes and streams, from which they emerge wild fish, fleeing from the movements of strange fish instead of expecting food when there is a disturbance of the water.

Several million eggs were planted in Warm Springs Lake, Auk Lake, and in some of the known salmon-spawning streams. The

fry all seem to be thriving, and young fish thus hatched are larger and stronger than fry hatched in the hatchery and fed under artificial conditions for several months before being released.

Many streams have been absolutely choked by fallen timber, preventing the ascent of salmon to the spawning beds; other streams, by reason of rocks and rubbish dams, are blocked at low water. Within its limited funds the commission has been clearing out the débris and blasting the rock obstructions so that fish may not be impeded in their passage. Most encouraging reports are received from observers of the streams which have been cleared.

The commission hopes in the near future to extend the scope of its work.

ILLEGAL FISHING.

During the latter months of the fishing season of 1919, fish piracy was checked by the arrest of several violators of the law, and it was thought that on account of convictions procured there would not be a repetition of trap robberies; however, with the start of the fishing season in May, 1919, an alarming increase in lawlessness was reported. Trap watchmen were intimidated at the point of a gun and their traps brailed in a most brazen manner. Some watchmen were undoubtedly in league with the pirates. Practically all of the piracy is found in southeastern Alaska. In Icy Straits and Chatham Straits the pirates were particularly bold. Below Ketchikan it is reported that 18 traps were robbed on one night by boats selling fish in Prince Rupert, British Columbia. The Bureau of Fisheries until July 1 was inactive on account of lack of funds; the marshal's office could obtain no evidence on which to act; the Navy patrol was unable to cope with the situation. As important as finding the trap robbers is the finding of the markets for the stolen fish. It is supposed that part of the fish go to Prince Rupert, but the greater number are undoubtedly absorbed by certain canneries and cold-storage plants not overparticular regarding the source of their supply. It is certainly due the canneries that their investment of over $66,000,000 be protected from lawlessness. There should be a large and aggressive force of wardens constantly in the field to protect not only the canners against piracy but also to enforce the closed seasons against trap fishing.

Stream fishing is openly practiced. Nothing so depletes the fish supply as the robbing of the salmon spawning streams. The agents of the Federal Government seem powerless to stop it.

When the fish supply is normal there is little violation of the law, but with depleted runs as have occurred during the past two years, in the greed to obtain fish, every law and every regulation is almost openly defied by certain elements found both among canners and the fishermen who care nothing for the future, but who reason only in terms of the immediate dollar, no matter how obtained. If the Government is to continue to control Alaskan fisheries, it should take immediate steps to provide facilities to enforce law and regulations.

CHILD LABOR.

In my report for 1919 I advocated that the regulations governing child labor in canneries be modified. Many of our boys by reason of

summer employment in canneries were accumulating enough money to pay their way through college. A particular hardship was worked upon native children who were not only deprived of a source of livelihood but, on account of idleness, fell easily into bad habits. Regulations have now been so simplified as to allow an easier compliance with the law, and a child may be allowed to engage in cannery labor upon the submittal of a parents' affidavit or sworn statement of the child's age, supplemented by a health certificate of any available physician. Alaska should be entirely exempted from all the provisions of the law, as all occupations in Alaska at which children can be employed are only seasonal to the summer vacation and can not in any way be classed as dangerous to their physical or moral welfare.

SEAL FISHERIES.

I am told by the Commissioner of Fisheries that the take of seal and fox skins from the Pribilof Islands for 1917 and 1918 will net the Government $6,400,000. In this large amount the Territory participates in not the slightest measure. Under careful governmental supervision the herd, at one time on the verge of annihilation, has increased to about 525,000 animals, which inhabit the waters of Alaska during the summer season. It is estimated that each seal kills at least two tons of fish each year. Consequently, of a total of 1,050,000 tons of fish killed each year by the herd, 450,000 tons may be called Alaska fish. There is a great difference of opinion as to the character of fish killed by the seals. The Bureau of Fisheries in its investigation of the stomachs of seals believes that the best food fishes are not killed to any great extent. On the other hand, former sealers tell me that the bureau has only investigated the stomaches of seals from the islands, whereas in the former pelagic sealing it was noted by the sealers that the cows would follow the salmon runs as far as a hundred miles from the rookeries. If this is so, it would seem a wise policy on the part of the Government to make a thorough investigation, and perhaps not to allow the herd to increase to a number in excess of half a million. The law should then be amended to vest discretionary powers concerning killing in the bureau. It also seems that a large enough amount of the net proceeds from the fur sales might be devoted to the protection of all the fisheries of Alaska. The satisfactory condition of the seal herd only shows what can be done to a depleted industry under proper laws and regulations well enforced to establish it as a source of Federal and Territorial wealth.

RIVER CANNERIES.

Canneries are maintained above the mouths of several Alaskan rivers, taking their catches in part or wholly from the rivers. During the past season an attempt was made to have the cannery taking fish on one of the mouths of the Yukon River prohibited from further operation. A serious shortage of salmon, so vital particularly to the welfare of the natives, was attributed to the cannery and a bill was introduced into Congress to prohibit its operation.

The Bureau of Fisheries was not convinced that the cannery was the cause of the shortage, nor does it seem possible that fishing in

Bering Sea and on one of the many mouths of the Yukon Delta could noticeably affect the supply. Investigation is being made this season by two scientists of the bureau. The latest reports are to the effect that more than the usual number of fish were being taken by natives from the Yukon even during the time the cannery was in operation.

I am not in favor of any stream fishing excepting in some streams where it is impossible to fish outside the mouths and where this particular run of salmon would be lost to commercial use, but neither am I in favor of the arbitrary confiscation of property, without compensation, through laws or regulations issued subsequent to the establishment of industry. It is on account of arbitrary powers that capital is reluctant to invest in any new Alaskan field. Complaint is also made that there is overfishing of the Copper River. The Bureau of Fisheries is to hold hearings at Cordova in order to formulate a policy.

FISHERIES LEGISLATION.

New legislation covering the fisheries of Alaska is imperative, The present laws, while probably sufficient to cover the period during which they were passed, do not cover present conditions of intensive fishing by seine and fixed gear. There have been a number of bills introduced into Congress, but they were always attacked by some faction and killed. In an endeavor to bring all interested into agreement, in November, 1919, I called a meeting in Seattle at which a committee was appointed to draft a new bill. For the first time the canners appeared to be willing to have the voice of the Territory heard. The committee was to draw the bill and submit the draft to the governor for his approval; thereafter it was agreed that all should endeavor to have the measure enacted into a law. The subcommittee did faithful work in the preliminary preparation. The bill was submitted to the full committee and to me and agreed upon, but in the final rewriting the wording was in part so changed that I could not possibly accept it in its entirety. The bill was forwarded to me in Washington, but arrived so late in the season that even had it been possible to rewrite it in accordance with the original draft, it could not have received attention at the hands of the House committee during the session of Congress.

I believe primarily in Territorial control of the fisheries, but if a change in the organic act of the Territory can not be procured to allow of such control, I believe that a law should be enacted along the general lines of the drafted bill with such changes as will overcome the objections of the governor and of the Bureau of Fisheries.

The Territory is willing to foster and protect her fisheries if allowed to do so by the Government. This I urge upon Congress as the logical course. If, however, the fisheries remain controlled as at present, I urge an appropriation of at least $300,000 a year for patrol and protection of fishing grounds and for the clearing of salmon spawning streams.

An official of the Bureau of Fisheries estimates that $400,000 per annum is the minimum amount that should be estimated. At present about $50,000 is appropriated for protective purposes, including statutory positions in Alaska and elsewhere, maintenance of boats, etc.

A proper warden service could well become a part of the advocated Alaska police force.

FISHERIES STATISTICS.

The Commissioner of the Bureau of Fisheries has furnished the following carefully prepared data on Alaska fisheries:

The fisheries industry of Alaska, as a whole, showed a general decline in 1919 from 1918, particularly in the various branches of the salmon industry. The work of the bureau was considerably expanded along certain lines. The patrol force on the fishing grounds was augmented during the active season and extensive investigations were made for the purpose of determining the condition of the fishery in certain sections and the need for further restrictions on commercial fishing. As the result of information obtained through these investigations and at hearings held in the fall of 1919, further limitations were placed on salmon fishing in the waters of southeastern, central, and western Alaska, extending as far as Cape Sarichef on the west and northward in Bering Sea to Cape Newenham.

The Fishery Intelligence Service for the reporting of prices of fish in Alaska was continued. In the stream-watchman service nine special employees were engaged in the southeastern district and five in the central district, in addition to the special detail of a Territorial employee during the active fishing season in central Alaska. Four patrol boats were secured by transfer from the Navy Department which will be placed in active service as soon as practicable. One additional vessel was constructed in the spring of 1920 for use on the Yukon River, and a number of small launches were chartered for short periods. Assistance in the patrol was also rendered by naval vessels stationed in Alaska.

A number of prosecutions were instituted by the bureau's representatives during the year, in the great majority of which cases convictions resulted with the imposition of fines or other penalties.

SALMON HATCHERIES.

In the fiscal year 1920, as in the preceding period, the propagation of salmon in Alaska was carried on at four fish-cultural stations—two operated by the Government and two by private interests. In the fiscal year 1919 there were released from the privately owned hatcheries 35,057,000 red-salmon fry, for which, at the rate of 40 cents for each 1,000 fry, the owners were entitled to a rebate of $14,022.80 in Federal license taxes on canned product.

In the season of 1918–19 the total number of young red, or sockeye, salmon liberated was 95,969,700, of which number 60,912,700 were released from Government hatcheries. In the calendar year 1919 the take of red, or sockeye, salmon eggs at Government stations was 88,930,000, and by privately owned hatcheries 30,130,000. In the same period there were also taken 600,000 humpback salmon eggs at one of the privately owned hatcheries. No humpback eggs were taken at Government stations.

NUMBER OF PERSONS EMPLOYED.

The number of persons employed in the fisheries of Alaska in 1919 was 28,534. Of these, 16,326 were classed as white, 3,875 as natives, 2,770 as Chinese, 1,507 as Japanese, 1,578 as Filipinos, 1,891 as Mexicans, and 587 as miscellaneous. The total number in 1918 was 31,213, or 2,679 more than in 1919.

INVESTMENTS IN ALASKAN FISHERIES.

The total investment in the fisheries of Alaska in 1919 was $74,181,560, of which $66,495,171, or approximately 89 per cent, was invested in the salmon-canning industry. The investment in 1919 was greater than in 1918 by $430,771. Of the 1919 investment, approximately $37,573,000 was in southeastern Alaska, $14,651,000 in central Alaska, and $21,957,000 in western Alaska. Other information in regard to investments is given in connection with the details of the more important subdivisions of the industry.

QUANTITY AND VALUE OF PRODUCTS.

The total value of Alaska's fishery products in 1919, exclusive of aquatic furs, was $50,282,067, a decrease of $8,872,792 from the preceding year, when they were valued at $59,154,859. The quantity and value of the various products of the Alaska fisheries in 1919 were as follows:

Quantity and value of products of Alaska fisheries for the year 1919.

Products.	Quantity.	Value.
Salmon:		
Canned, cases	4,583,688	$43,265,349
Mild cured, pounds	4,490,600	916,800
Pickled, do	1,622,000	195,447
Frozen, do	1,552,480	130,355
Fresh, do	5,208,327	356,688
Dry salted, do	212,244	17,601
Dried and smoked, do	415,000	43,000
By-products, oil, gallons	966	966
By-products, fertilizer, pounds	724,000	18,680
Halibut:		
Fresh, pounds	7,783,179	880,433
Frozen, do	6,495,372	670,147
Canned, do	240	25
Herring:		
Canned (½-pound cans), cases	6,357	40,395
Canned (1-pound cans), do	95,448	811,366
Dry salted for food, pounds	510,000	20,150
Fresh for bait, do	1,254,926	11,210
Frozen for bait, do	2,444,655	24,246
Pickled for bait, do	40,000	800
Pickled, Scotch cure, do	7,718,985	451,240
Pickled, spiced, do	11,715	1,676
Pickled, Norwegian cure, do	2,216,120	147,634
Fertilizer, do	1,712,000	56,653
Oil, gallons	169,374	110,800
Cod:		
Dry salted, pounds	9,829,343	773,297
Pickled, do	956,098	46,014
Frozen, do	86,971	4,209
Stockfish, do	2,900	700
Tongues, do	18,000	1,770
Whales:		
Oil, gallons	875,374	656,510
Sperm oil, do	377,032	276,344
Fertilizer, meat, pounds	2,060,000	76,420
Fertilizer, bone, do	538,000	13,472
Bone, do	13,647	2,729
Ivory, do	746	225
Meat, frozen, do	50,000	1,500
Clams, cases	33,765	184,363
Trout:		
Fresh, pounds	80,977	9,086
Frozen, do	2,780	408
Pickled, do	2,200	165
Canned, cases	371	3,496
Sablefish, fresh and frozen, pounds	509,369	35,485
Red rockfish, do	69,048	1,414
Crabs, dozens	80	160
Shrimps, pounds	60,000	21,000
Miscellaneous fresh fish, do	52,123	1,639
Total		50,282,067

THE SALMON INDUSTRY.

Following the heavy catches of salmon for a number of years in Alaska, it is not surprising to note in the season of 1919 a general shrinkage of production in all branches of the salmon industry, exclusive of mild curing. The falling off was heaviest in the western district, where the catch was less than in 1918 by 67 per cent; in the central district the decrease was 52 per cent; and in the southeastern district, 23 per cent, a decrease of about 42 per cent on the whole. The value of salmon products continued to be several times that of all other fishery products combined.

The greater part of the salmon catch in Alaska is made by seines, gill nets, and pound nets. There were 800 seines operated in 1919, the aggregate length

of which was 137,284 fathoms; 4,120 gill nets, measuring 459,937 fathoms; and 630 pound nets or traps.

In 1919 the total number of salmon taken in Alaska was 58,172,665. The take by species was as follows: Coho, or silver, 2,429,846; chum, or keta, 12,179,120; humpback, or pink, 25,894,976; king, or spring, 967,992; and red, or sockeye, 16,700,731. The total take in 1918 was 101,454,688, or 43,282,023 greater than in 1919. There was a decreased catch of all species except kings in 1919.

Salmon canning.—The value of the output of canned salmon in 1919 represented about 96 per cent of the value of the total products of the salmon industry. The investment in the salmon-canning industry amounted to $66,495,171, of which $33,741,891 was in southeast Alaska, $12,897,947 was in central Alaska, and $19,855,333 in western Alaska. The total investment in 1918 was $63,901,397, or $2,593,774 less than in 1919. There was a larger investment in the salmon-canning industry in the southeastern and central districts but a smaller in the western district than in 1918. The number of persons engaged in 1919 was 25,499, or 1,003 less than the number employed in 1918. The output of canned salmon in 1919 consisted of 4,583,688 cases, valued at $43,265,349, as compared with 6,605,835 cases in 1918, valued at $51,041,949. The pack and value according to species in 1919 were as follows: Coho, or silver, 232,870 cases, valued at $2,624,826; chum, or keta, 1,365,563 cases, valued at $9,320,456; humpback, or pink, 1,611,608 cases, valued at $13,469,046; king, or spring, 95,986 cases, valued at $1,261,057; red, or sockeye, 1,277,661 cases, valued at $16,589,964. In 1919 there were operated in the salmon industry 134 canneries, as compared with 135 in 1918.

Mild curing of salmon.—This was the only branch of the salmon industry that showed an advance in 1919 over that reported in 1918. With the exception of 182 tierces, all of the 1919 pack came from southeastern Alaska. The number of plants operated was 11, although mild curing of salmon was carried on by more than 30 packers. The number of persons employed in the industry was 133. The total product of mild-cured salmon amounted to 5,376 tierces, or 4,490,600 pounds, the value of which was $916,800. Of this output, 5,346 tierces, valued at $912,004, were of king salmon.

Pickling of salmon.—There was a striking decrease in the amount of salmon pickled in Alaska in 1919, amounting to almost a collapse of the industry. There were but 11 plants operated in 1919, of which 2 were in central Alaska and 9 in western. In 1918 there were 27 plants operated. The investment in 1919 was $590,422 and the number of persons employed was 267. The output consisted of 8,110 barrels, or 1,622,000 pounds, valued at $195,447. In 1918 the output consisted of 56,890 barrels, valued at $1,079,881.

Other salmon industries in 1919.—The output of frozen salmon in 1919 was 1,552,480 pounds, valued at $130,355. In 1919 there were sold fresh in Alaska 5,208,327 pounds of salmon, valued at $356,688. A total of 212,244 pounds of salmon, valued at $17,601, was dry salted in western Alaska.

Exact statistics are not available as to the amount of salmon dried and smoked. A conservative estimate would place the quantity at 400,000 pounds, having a value of at least $40,000. In addition to this there were prepared in southeastern Alaska 15,000 pounds of kippered salmon, valued at $3,000. Salmon waste products yielded 966 gallons of oil, valued at $966, and 362 tons of fertilizer, valued at $18,680.

HERRING.

The herring industry of Alaska suffered a decided setback in 1919, due in part to the large eastern markets being supplied with European herring. The light demand for Alaska pickled herring may also be attributed to some extent to faulty packing and poor selection, matters wholly within the power of the packers to remedy. The demand continued to be better for the Scotch cured product than for any other cure, as is evidenced by the fact that 7,718,985 pounds were Scotch cured, as against 2,216,120 pounds Norwegian cured. Canned herring was the leading product, amounting to 101,805 cases, valued at $851,761.

The investment in the herring fishery in 1919 was $900,572, a decrease of more than 50 per cent from the amount reported in 1918. The number of persons employed was 427 and the value of products was $1,676,170. The value of the output in 1918 was $1,819,538.

HALIBUT.

The halibut industry of Alaska was again second to the herring fishery in value of output. In 1919 the investment in the halibut industry was $1,979,457. In 1918 it was $2,594 292, or greater by $614,835. The number of persons employed in 1919 was 867. The total production of halibut credited to the Territory was 14,278,791 pounds, valued at $1,550,605. Including the catch of halibut delivered by American vessels at Canadian ports, a total of approximately 26,000,000 pounds of halibut was obtained by American vessels in 1919.

COD.

The cod fishery of Alaska showed a considerable decline in 1919 from the production of previous years. Reasons given for this were lack of transportation and inability to compete with cod imported from Japan. Bering Sea continued to be the principal field of production, though considerable catches were made on the banks of the Pacific Ocean south of the Alaska Peninsula. The investment in the cod fishery in 1919 was $1,286,075, which was $14,957 greater than in 1918. The number of persons employed was 702, as against 697 in 1918. The total production of prepared cod amounted to 10,893,312 pounds, valued at $852,990.

WHALES.

Three whaling stations were operated in Alaska in 1919, one at Port Armstrong, in the southeastern district; one at Akutan, in the Aleutian Islands; and one at Nome. At the latter only belugas, or white whales, were handled. The results of the season were very gratifying. The total value of the products was $1,027,200, an increase of $193,073 over 1918. The number of whales taken was 580, or 132 more than in 1918. The investment in the whale fishery in 1919 was $1,790,867, or an increase of $439,896 over 1918. There were 311 persons employed, or 14 less than in 1918.

MINOR FISHERY PRODUCTS.

The clam-canning industry, represented by an investment of $147,167, gave employment to 237 persons and produced 33.765 cases of products, valued at $184,363. The value of trout products amounted to $13,155. Shipments of sablefish amounted to 509,369 pounds, valued at $35,485. The production of red rockfish amounted to 69,048 pounds, valued at $1,414. The only reported catch of crabs were 80 dozen, valued at $160. The total production of shrimps was 60,000 pounds, valued at $21,000. Miscellaneous species of fish were utilized, as flatfish, smelt, ling cod, etc., in the estimated quantity of 52,123 pounds, valued at $1,639.

FUR-SEAL SERVICE.

Commercial killing of fur seals was continued on the Pribilof Islands in the season of 1919. There were taken on St. Paul Island 24,053 sealskins and on St. George Island 3,768, a total of 27,821 skins for the calendar year 1919.

Two sales of dressed, dyed, and machined fur-seal skins from the Pribilof Islands were held in St. Louis in 1919. On April 28 the number of skins sold was 10,102, and the total price bid was $674,491, the average per skin being $66.77. At the sale on September 10 the number of skins disposed of was 9,055, and the total price bid was $827,112.50, an average of $91.34 per skin. The total number of skins sold during the year was 19,157, and the total amount bid at the two sales was $1,501,603.50.

Following the practice of previous years a census of the fur-seal herd was taken in the summer of 1919. The steady growth in size of the herd from year to year renders it increasingly difficult to secure accuracy in the results, but it is thought that computations based upon the known factors in the herd furnish a close approximation.

The following table shows the results of the censuses taken in the years from 1912 to 1919:

General comparison of recent censuses of the seal herd.

Class of seals.	1912	1913	1914	1915	1916	1917	1918	1919
Harem bulls	1,358	1,403	1,559	2,151	3,500	4,850	5,344	5,158
Breeding cows	81,984	92,269	93,250	103,527	116,977	128,024	142,915	157,172
Surplus bulls						8,977	17,110	9,619
Idle bulls	113	105	172	673	2,632	2,706	2,444	2,239
Young bulls (chiefly 5-year-olds)	199	259	1,658					
6-year-old males					11,167	15,397	13,755	8,991
5-year-old males				11,271	15,494	14,813	11,941	5,282
4-year-old males	100	2,000	9,939	15,848	15,427	16,631	7,114	5,747
3-year-old males	2,900	10,000	13,880	18,282	19,402	19,507	9,117	13,596
2-year-old males	11,000	15,000	17,422	23,990	24,169	26,815	30,159	33,081
Yearling males	13,000	20,000	23,068	30,307	33,645	38,013	41,596	46,444
2-year-old cows	11,000	15,000	17,422	23,990	24,245	26,917	30,415	33,287
Yearling cows	13,000	20,000	23,067	30,306	33,646	38,018	41,608	46,447
Pups	81,984	92,269	93,250	103,527	116,977	128,024	142,915	157,172
Total	215,738	268,305	294,687	363,872	417,281	468,692	496,432	524,235

Herds of blue foxes are also maintained on the Pribilof Islands by the Bureau of Fisheries. The pelts taken in the season of 1918–19, consisting of 119 blue and 25 white pelts on St. Paul Island and 548 blue and 5 white pelts on St. George Island, a total of 667 blues and 30 whites, were, with the exception of 2 blues retained for exhibition at Washington, sold at St. Louis on September 10, 1919. The 665 blues brought $130,274.50, an average of $195.90 per skin, and the 30 whites brought $1,660, an average of $55.33.

In the season of 1919–20 there were taken on St. Paul Island 155 blue and 32 white pelts, and on St. George Island 746 blue and 4 white pelts, a total of 901 blues and 36 whites.

Special effort is made each season to take all of the white foxes in order to eliminate as much as possible the less valuable white strain.

One shipment of old seal and sea-lion bones was made from the Pribilof Islands in 1919, the net proceeds amounting to $1,105.37, of which $527.55 was paid to natives for labor and $577.82 turned into the United States Treasury.

The by-products plant erected on St. Paul Island in 1918 was operated in 1919 for brief periods only, due principally to an unavoidable shortage of coal. The output consisted of 3,000 gallons of oil and 20,568 pounds of fertilizer. The oil brought prices ranging from 90 cents to $1.50 a gallon, depending on the grade, and the net proceeds amounted to $3,640. The fertilizer sold at $75 per ton, producing $771.30.

Early in the fiscal year 1920 a small power schooner was placed on the run between Unalaska and the Pribilof Islands, and has been of great service in the transportation of passengers and small lots of miscellaneous freight for the bureau.

MINOR FUR-BEARING ANIMALS.

Fur farming continues of considerable importance in Alaska, attention being given almost exclusively to the propagation of the blue fox and the various color phases of the red fox. The experience of a number of fur farmers indicates that free range or island breeding offers the best chance of success when seriously undertaken, the prime requisites being area great enough to afford considerable range to the animals and sufficiently distant from other land to prevent their escape, and an ample food supply to properly sustain them.

In the fiscal year 1920 five islands under the authority of the Department of Commerce were leased for fur farming. They were as follows: Chirikof, Long, Marmot, Little Koniuji, and Middleton. A lease effective July 1, 1920, has been granted for Pearl Island. Approximately 40 islands within the forest reserves were also occupied for fur farming under permits granted by the Forest Service.

Only one change was made in the regulations for the protection of fur-bearing animals in Alaska in the fiscal year 1920. Under date of January 9, 1920, the closed season on sea otters was extended to November 1, 1925.

Large seizures of illegally taken furs were made in the fiscal year 1920. Convictions with fines and jail sentences resulted in some cases, and other prosecutions were pending at the end of the year.

As in previous years, statistics of the shipments of furs from Alaska were compiled by the Bureau of Fisheries. Reports of shipments are forwarded by the consignors, covering skins forwarded by mail and otherwise. The Post Office Department and other common carriers cooperated in supplying report blanks to shippers and forwarding them to the bureau. Shipments are also checked with the returns of the customs service.

In 1919 the value of furs shipped from Alaska, including those from the Pribilof Islands, was $3,021,182, as compared with $2.288,170. The greater part of this increase is in the higher price of furs in the season of 1919.

The following table shows details as to the quantity and value of furs shipped from Alaska in the period from November 16, 1918, to November 15, 1919, with the exception that the figures for the fur-seal skins are for the calendar year 1919:

Furs shipped from Alaska in the year ended Nov. 15, 1919.

Species.	Number of pelts.	Average value.	Total value.
Bear:			
Black	1,388	$16.00	$22,208.000
Brown	44	12.00	528.000
Glacier	20	30.00	600.000
Grizzly	76	20.00	1,520.000
Beaver	[1] 796	17.76	14,139.960
Ermine	18,617	1.90	35,372.300
Fox:			
Black	13	150.00	1,950.000
Blue	566	130.00	73,580.000
Blue, Pribilof Islands	667	195.21	130,274.500
Cross	1,280	70.00	89,600.000
Red	7,723	35.00	270,305.000
Silver gray	315	170.00	53,550.000
White	4,575	46.00	210,450.000
White, Pribilof Islands	30	55.33	1,660.000
Hare, Arctic	135	.20	27.000
Lynx	1,085	42.00	45,570.000
Marten	[2] 1,107	32.00	35,424.000
Mink	28,040	9.00	252,360.000
Muskrat	113,652	1.90	215,938.800
Otter:			
Land	1,709	25.00	42,725.000
Sea	[3] 1	300.00	300.000
Seal, fur, Pribilof Islands	[4] 30,198	50.00	1,509,900.000
Squirrel	2,120	.03	63.600
Wolf	284	19.00	5,396.000
Wolverine	516	15.00	7,740.000
Total			3,021,182.160

[1] Confiscated skins.
[2] Includes 93 confiscated skins.
[3] Found dead.
[4] Figures are for shipments during calendar year rather than killings.

TRANSFER OF JURISDICTION OVER FUR-BEARING ANIMALS.

By the act of May 31, 1920, jurisdiction over the land fur-bearing animals of Alaska and with respect to the leasing of certain islands in Alaska for the propagation of fur-bearing animals was transferred from the Secretary of Commerce to the Secretary of Agriculture, and jurisdiction over walruses and sea lions was transferred from the Secretary of Agriculture to the Secretary of Commerce.

BUREAU OF BIOLOGICAL SURVEY.

Under authority of the act making appropriations for the Department of Agriculture for 1921, the United States Bureau of Bio-

logical Survey has undertaken a study of reindeer conditions in Alaska, particularly in reference to parasitical diseases, breeding, marketing, grazing areas, and all other subjects having a bearing on the raising of reindeer as an industry.

An experiment station, in charge of an experienced veterinarian and his assistant, has been established at Unalaklet, where several herds are available for study.

The Government can initiate no more constructive work. This is in line with what I consider should be the functions of the scientific bureaus in Alaska. It is constructive and advisory. The service is rendered by experts stationed within Alaska who are confronted constantly with actual conditions and problems. I look for most beneficial results.

The chief of the bureau personally directed the purchase of laboratory equipment and the location of the station.

The Biological Survey has now taken over from the Bureau of Fisheries of the Department of Commerce all jurisdiction over fur-bearing animals and hopes to be able to enforce the regulations covering the taking of fur bearers and assist in building up the rapidly diminishing supply. Methods of exterminating predatory animals, such as wolves and coyotes, are now being considered.

The bureau now also exercises authority to lease certain islands in southwestern Alaska formerly under the jurisdiction of the Bureau of Fisheries of the Department of Commerce, and enforces the migratory bird treaty law.

NATIVES OF ALASKA.

There is no doubt in my mind but that the natives of Alaska can be so developed in education and in industry as to become a great factor in the economic life of the Territory. In southeastern Alaska is found the greatest progress. There are many natives of full or mixed blood who have assumed the responsibilities of citizenship and who are able to compete on equal terms with their white neighbors. Among them are found clergymen, teachers, merchants, and navigators. They own their own homes and fishing vessels. Some of them are comparatively wealthy. In certain towns, such as Metlakatla, Klawock, and Hydaberg, the land they occupy is set aside by proclamation for their sole use; they can in no way be classed as reservation Indians. They are free to come or go as they wish; they are not supported by the Government, the land is simply held for their exclusive occupancy.

The natives of southwestern and western Alaska, as a class, have not progressed so rapidly, although progress is quite evident where education has been afforded. The Eskimos who inhabit the Yukon delta, Seward Peninsula, and the Arctic coast are being developed along other lines, principally in reindeer herding. The native of the Yukon River drainage does not adapt himself so readily to changed conditions of life; he is not so intelligent nor so adaptable as the Thlinket or the Eskimo; his problem is indeed a difficult one.

There are three educational agencies for native instruction in Alaska—the Bureau of Education of the Department of the Interior, the missionaries, and the Territory of Alaska, the latter being an unwilling contributor, but forced to take steps in this direction in

the interest of the public welfare. As a matter of equity, it seems that the Government should extend its excellent system of education to all full-blooded natives and those of mixed blood, as the drain on the Territorial treasury is very great.

The following tables show the distribution of children of full and mixed native blood in the various schools throughout the territory for the school year 1919–20:

School.	Number of children full-blood.	Number of children half-breed.	Number of children quarter-breed.	Number of children less than quarter-breed.	Total.
In incorporated towns.					
Anchorage		1	8	1	10
Cordova		8			8
Douglas	5				5
Eagle		1			1
Fairbanks	1	3	1		5
Haines		3	2		5
Juneau	3	9	4		16
Ketchikan		8	8		16
Nenana		3			3
Nome		17			17
Petersburg		2			2
Seward		3	2		5
Skagway		4			4
Tanana	1	16	5	2	24
Valdez	2	3	2	4	11
Wrangell	3	21	10		34
Total	15	102	42	7	166
Outside incorporated towns.					
Afognak	12	43	23		78
Blackburn [1]					
Candle		13			13
Charcoal Point		1			1
Chatanika	0	0	0	0	0
Chichagof [1]					
Chignik	4	11	10		25
Chilkat Valley		4			4
Chitina [1]					
Council		10	1		11
Craig	1	19			20
Deering	7	10			17
Eagle River	0	0	0	0	0
El'amar		8	2		10
Eska	0	0	0	0	0
Fairview	0	0	0	0	0
Finger Lake	0	0	0	0	0
Fortuna Ledge	4	4	6		14
Fox	0	0	0	0	0
Girdwood	0	0	0	0	0
Haycock	1	16			17
Hope			1		1
Kasaan	12	1	11		24
Kataila	2	6		3	11
Kenai	28	16	28	7	79
Kiana	2	12			14
Kodiak			36	53	89
Kotzebue		20			20
Latouche	3	8		4	15
Longwood	15	32	2		49
Loring	4	7			11
McCarthy				6	6
McGrath	1	5		1	7
Nini chic		26			26
Nushagak		6	9		15
Otter		4			4
Ouzinkie	8	16	10		34
Perserverance [1]					
Ruby	1	3	1		5
St. Michael		9	8		17
Sanak		4	7		11
Scow Bay [1]					
Seldovia	7	6	2	27	42

[1] No report.

School.	Number of children full-blood.	Number of children half-breed.	Number of children quarter-breed.	Number of children less than quarter-breed.	Total.
Outside incorporated towns—Continued.					
Sitka	0	0	0	0	0
Sulzer	0	0	0	0	0
Teller		14			14
Tenakee	1	2			3
Thane	0	0	0	0	0
Tofty	0	0	0	0	0
Treadwell					1
Unga			42		42
Ward's Cove				3	3
Wiseman	4	7			11
Total	117	344	199	104	764
Total in incorporated towns	15	102	42	7	166
Grand total	132	446	241	111	930

It is thus shown that there are 930 children of native blood being educated by the Territory. About 3,600 are reported enrolled in the schools of the Bureau of Education, hence the Territory is educating about 20 per cent of all the native children in Alaska. As the Territory spends by direct appropriation from the legislature and by allotment from the Alaskan fund a yearly sum of approximately $320,000 for the schooling of a total enrollment of about 3,400 children, it would seem that the territory is spending approximately $68,000 a year on education which should properly be borne by the Government.

The work of the Bureau of Education is highly commendable. With most limited appropriations it is training the native to useful citizenship, and while its endeavors among the older natives is not always fruitful, still the younger generations, where under the influence of the bureau, show splendid advancement. I should like to see the service expand to all corners of the Territory.

The work of the various missionary societies must not be overlooked. In their particular localities they are doing splendid work. Practically all of the larger denominations are well represented. The largest denominational plants are at Sitka, where the Presbyterians have established a fine boarding school named in honor of its founder, Sheldon Jackson; the Catholic schools at Holy Cross, Mulato, Mary Igloo, and Akularak are splendid institutions conducted by sisters of various orders; the Baptists have an orphanage at Wood Island but the school is maintained by the Territory; Methodists are well established at Unalaska; Moravians at Yakutat, Bethel, and Golnofin Bay; Episcopalians have schools at Tanana Crossing, Salchaket, Eagle, Ketchikan, Nenana, Anvik, Allakeket, and a mission at Point Hope on the Arctic. There are Episcopal hospitals at Tanana, Ketchikan, Point Hope, and Fort Yukon. At Point Barrow, the most northerly point of Alaska, the Presbyterians have just established a modern hospital.

I have endeavored to procure information on all the missions, but have not succeeded in getting in touch with all of the denominations. The work of the missions should be encouraged by all church people, as their work is most beneficial although uncoordinated and estab-

lished only in the larger fields. The Bureau of Education must handle the unattractive fields and bear the greatest burden of native education.

I recommend that there be appropriated annually an emergency epidemic appropriation of $50,000 for combating epidemics among the natives and for relief. This is in accordance with house joint memorial No. 16 of the legislature of 1919. It has been shown that the annual appropriation for medical relief can not cover an emergency, but such emergencies must be met. In 1918 and 1919 the Territory afforded relief to native sufferers in the great influenza epidemics at a cost of nearly $100,000. The Territory can not be expected to be again held responsible. During the past year the Territory has also had to handle a minor epidemic of smallpox among the natives. If an appropriation, as suggested above, is allowed and not expended before March 4 of any year, the appropriation, or any balance, should become part of the annual appropriation of the "Education and support of natives of Alaska." It would also be of great benefit to the bureau if the War Department could be authorized to loan or transfer to the bureau wireless outfits such as could be erected at the more inaccessible schools.

Many natives are found to be suffering from tuberculosis in all its forms and from hereditary diseases. There should be some way devised to separate those affected from the healthy. This is a difficult problem, as the natives resent any attempt at control. There is a Territorial law, which the Bureau of Education could well invoke, framed to deal with just such cases.

The natives of Alaska receive little support from the Government, comparatively speaking. For instance, for the year 1921 in Arizona, with approximately the same number of Indians as Alaska, there was appropriated for them $736,650 in addition to the amount appropriated for general purposes, while there was appropriated for Alaska a total amount of $371,400.

The superintendent of education of natives of Alaska makes the following report:

NATIVE SCHOOL SERVICE.

During the year the field force of the Bureau of Education in Alaska consisted of 6 superintendents, 133 teachers, 9 physicians, and 13 nurses. Sixty-seven schools were maintained.

As the result of the epidemic of influenza among the natives of northern and western Alaska during the autumn of 1918 and the spring of 1919 about 250 children were left orphans. In the Nome region it was found possible to distribute the orphans among Eskimo families, but in the Bristol Bay and Cook Inlet districts it was necessary for the bureau to assume their entire care in orphanages which were erected at Kanakanak and Tyonek.

NATIVE MEDICAL SERVICE.

The appropriation of $80,000 for medical relief was expended in maintaining hospitals at Juneau, Kanakanak, Akiak, Nulato, and Kotzebue; 9 physicians and 13 nurses were employed. To assist them in providing medical relief, each teacher is provided with a standard medical equipment with which to attend to ordinary ailments and less serious injuries.

METLAKATLA.

The rehabilitation of the colony at Metlakatla, on Annette Island, is progressing satisfactorily. In 1917 the Secretary of the Interior, on behalf of the

Metlakatlans, entered into a five-year lease with the Annette Island Packing Co., of Seattle, granting fish-trap privileges within the reserved waters adjacent to Annette Island and permission to erect and operate a cannery within the reserve. The returns to the Metlakatlans for fish royalties, trap fees, labor, and for lumber purchased from the local sawmill amounted during the season of 1919 to $90,032.88. It is hoped that in 1921 the revenues accruing from the lease will enable the Secretary of the Interior to take over, for the Metlakatlans, the property of the lessee within the reserve and to arrange for the operation of the cannery by the natives themselves. The Metlakatla Commercial Co., organized by the Bureau of Education, continues successfully to conduct the mercantile business of the colony and to operate the sawmill. The importation into Alaska of laborers needed by the salmon canneries has been a troublesome problem to the operators of the canneries and a great detriment to the natives of the villages in which the canneries are located. The Metlakatla Commercial Co. successfully fulfilled its contract with the Annette Island Packing Co. for the furnishing locally of the labor required by the cannery in Metlakatla, thus solving the problem in so far as their village is concerned.

REINDEER.

Assuming that there has been the usual net increase of 20 per cent in the number of reindeer during the year, there should be, approximately, 180,000[1] reindeer in Alaska June 30, 1920. The magnitude and value of the industry have resulted in the making by Congress of an appropriation to enable the Bureau of Biological Survey, Department of Agriculture, in cooperation with the Bureau of Education, to make investigations, experiments, and demonstrations for the improvement of the reindeer industry in Alaska; the chief of the Biological Survey has proceeded to Alaska in order to organize this work. The distribution of reindeer among the natives and the use of the enterprise as the form of industrial education best adapted to the races inhabiting the untimbered regions of Alaska will remain under the supervision of the Bureau of Education.

Regulations were adopted making effective the authority granted by Congress for the sale of surplus male reindeer belonging to the Government and the use of the proceeeds of such sales in the extension of the industry. The first sale under these regulations was made at Mountain Village, on the Yukon River, during the autumn of 1919. Under judicious management, the proceeds of such sales might provide the funds necessary for the support and extension of the reindeer industry, independently of appropriations made by Congress. It is very desirable that the reindeer industry be extended into the region tributary to the Government railway in Alaska. The area suitable for pasturage of reindeer in the Broad Pass region, reached by the railway, and extending eastward along the northern and southern slopes of the Alaska range is, approximately, 12,000 square miles. Most of this region is timberless and more than 2,000 feet above sea level. It is therefore swept by mountain breezes which would serve to protect herds against mosquitoes and flies. After the Government has demonstrated the practicability of raising reindeer in that part of Alaska private owners would undoubtedly drive their herds into that region in order to avail themselves of the market afforded by railway transportation.

TRANSPORTATION DIFFICULTIES.

The 67 villages in Alaska in which the work of the Bureau of Education is carried on are scattered along thousands of miles of coast line and on the great rivers. Very many villages are not on the routes of commercial vessels. Some of the settlements can be brought into touch with the outside world only during the short season of open navigation in midsummer. The securing of transportation from Seattle to their remote destinations of teachers, physicians, and nurses, and of the supplies and building materials required in the Alaska School Service, the Alaska Medical Service, and the Alaska Reindeer Service is an undertaking of great difficulty. The problem was acute during the summer of 1919, transportation to and in Alaska being in a chaotic condition as the result of war conditions, and because vessels carrying freight for western and northern Alaska had left Seattle before the passage of the appropriations for the

[1] Estimates from other sources place the total number at not less than 200,000 reindeer.

support of the work of the Bureau of Education in Alaska. Even on the established routes rates were excessive and steamers were unable to maintain their time schedules; there were long delays of passengers and freight at transfer points. In several instances excessive emergency transportation of employees and supplies had to be secured. For a long series of years the Coast Guard Service, through its vessels cruising in Alaskan waters, has willingly cooperated with the Bureau of Education, but its vessels are not adapted to the carrying of passengers and freight, and they have numerous other duties to perform.

Experience has shown that the work of the Bureau of Education in Alaska can never be administered effectively and economically until the bureau owns and controls its own vessel. Request was therefore made to the Navy Department for a vessel suitable for use by the Bureau of Education in connection with its work in Alaska. Complying with the request, the Navy Department transferred to the Department of the Interior the U. S. S. *Boxer*, a stanch, wooden vessel with a carrying capacity of about 450 tons and admirably adapted for the purpose contemplated. The endeavor to secure a congressional appropriation to meet the expense of refitting the *Boxer* for service in Alaskan waters did not meet with success. The vessel is held at the Naval Training Station, Newport, R. I., pending the securing of an appropriation.

The vast extent of the Territory, the remoteness of many of the settlements, and lack of transportation facilities make the taking of the census of Alaska a matter of great difficulty. At the request of the Bureau of the Census, Mr. W. T. Lopp, Superintendent of Education of Natives of Alaska, was placed in charge of the entire work of the Alaska census of 1920, with the bureau's superintendents, physicians, and teachers in all parts of the Territory as special agents and enumerators. This cooperative arrangement while greatly increasing the duties of the bureau's employees during the year proved to be mutually economical and advantageous.

SCHOOLS.

The public schools of Alaska are under the direction of the Territorial board of education with the commissioner of education, Juneau, Alaska, as executive head. They are maintained for white children and for children of mixed blood leading a civilized life, and are administered under both Federal and Territorial laws. The Federal law, known as the "Nelson law," provides for schools outside of incorporated towns or incorporated school districts, and allots for their maintenance 25 per cent of the Alaska fund which is disbursed by authority of the governor. The Territorial laws provide for schools in incorporated towns or districts, one-fourth of the cost of maintenance being borne by the town or district by taxation of real and personal property, and three-fourths by the Territory up to a certain limit. Territorial laws provide for the establishment of citizenship night schools and carry an appropriation for their support.

There are 163 teachers in the schools of Alaska. Seventy per cent of the teachers are normal school or college graduates. Eighty-eight per cent of the high-school teachers are college graduates who have, in addition, had advanced study. The average teaching experience of Alaska teachers is seven and one-half years. Approximately 60 per cent have had previous teaching experience in Alaska, while 50 per cent have had experience both inside and outside Alaska.

Schools in the following towns offer four years of high school work: Anchorage, Douglas, Fairbanks, Juneau, Ketchikan, Nome, and Valdez. Those giving a three-year course are at Cordova, Seward, Skagway, and Wrangell. Petersburg and Sitka give a two-year course. A few of the one-teacher schools, in which all of the grades are not represented, present high school subjects to advanced

pupils. Alaska high schools are in general accredited at the leading State universities. The law authorizes teacher training departments in connection with high schools. Courses are two years in length and extend through fourth year of regular work and through fifth or additional year of high school. Such departments have been organized at Juneau and Ketchikan.

Five of the larger communities offer courses in manual training and domestic science, and at least some work along this line is done in approximately one-fourth of the schools. Special supervisors of music and drawing are employed in a few of the larger institutions; these subjects are given under the direction of the classroom teachers. Orchestra and chorus work are not neglected. Military drill is a regular part of the required course of several of the schools. The larger communities afford facilities for gymnasium work, while in many communities the physical education work is confined to such calisthenic exercises as can be conducted in the schoolroom and in the playground. Medical inspection and dental examination have been introduced, eight schools providing for the former and two for the latter.

Visual education bids fair to occupy a very definite place in the future. The following schools are now equipped with motion-picture machines which handle standard size films: Anchorage, Cordova, Douglas, Juneau, Ketchikan, and Valdez.

Americanism and patriotism are prominent in the curriculæ. An active interest is taken in patriotic programs, the observance of American Speech Week, the National Week of Song, etc. Alaska school children are contributing to the "America's Gift to France" fund. The Junior Red Cross is well represented in the Territory. In several communities troops of Boy Scouts are being organized and territory-wide organizations of both Boy Scouts and Girl Scouts are being encouraged. That thrift is stressed is brought out by the fact that the school savings report from 37 schools shows a total savings in Government securities and savings banks of $59,817.25.

The Territorial textbook commission held its first meeting in December, 1919, and adopted elementary and high school textbooks for use in Alaska for a period of four years from September 1, 1920. The law which created the textbook commission provides that after September 1, 1921, it shall be unlawful for any school to use textbooks other than those adopted by the commission, except for purposes of supplementary study.

SCHOOLS IN INCORPORATED TOWNS AND INCORPORATED DISTRICTS.

There are 14 schools in incorporated towns and 2 in incorporated school districts supported in part by Territorial appropriation. The average for the 16 schools, as shown by the table of statistics, are as follows: Average number of teachers 6.12, with an average yearly salary of $1,412.13 per teacher; average enrollment, 128.81; average daily attendance, 102.17; average cost of maintenance, exclusive of teachers' salaries, $4,070.57. The average cost per pupil was $98.75, as compared with $87.42 for the previous year.

Statistics of white schools for the school year 1919–20.

Location.	Number of teachers.	Total enrollment.	Average daily attendance.	Term (months).	Grade-school graduates.	High-school graduates.	Expenditures.		
							Salaries of teachers.	All other.	Total.
In incorporated towns.									
Cordova	5	133	98.12	9	2	3	$8,215.00	$6,930.80	$15,145.80
Douglas	9	148	117.04	9	7	3	10,532.97	3,234.02	13,766.99
Eagle	1	6	5.91	7	.....	.....	1,225.00	169.71	1,394.71
Fairbanks	10	198	176.38	9	18	6	15,525.00	5,475.00	21,000.00
Haines	3	43	36.57	8	4	.....	3,465.00	1,342.88	4,807.88
Juneau	17	387	291.00	9	20	11	22,551.00	13,052.31	35,603.31
Ketchikan	13	316	251.47	9	15	5	18,750.00	1,875.00	20,625.00
Nome	6	89	74.75	9	7	.....	9,900.00	6,650.00	16,550.00
Petersburg	5	100	86.05	9	11	.....	6,650.00	2,869.42	9,519.42
Seward	4	94	71.93	9	4	.....	5,850.00	3,385.86	9,235.86
Skagway	5	95	80.1	10	.....	.....	6,400.00	3,502.41	9,902.41
Tanana	1	29	24.65	9	.....	.....	1,800.00	462.40	2,262.40
Valdez	4	61	45.26	9	2	.....	5,445.00	2,912.90	8,357.90
Wrangell	5	129	89.84	9	8	1	5,970.00	2,442.51	8,412.51
Total	88	1,828	1,449.07	.....	98	29	122,278.97	54,305.22	176,584.19
In incorporated school districts.									
Anchorage	8	196	150.75	9	.....	2	12,960.00	8,374.00	21,334.00
Nenana	2	37	34.97	9	.....	.....	3,150.00	2,450.00	5,600.00
Total	10	233	185.72	.....	.....	2	16,110.00	10,824.00	26,934.00
Grand total	98	2,061	1,634.79	.....	98	31	138,388.97	65,129.22	203,518.19

Statistics of white and mixed schools outside of incorporated towns for the school year 1919–20.

District.	Number of teachers.	Total enrollment.	Cost of maintenance.	Term (months).
Afognak	3	84	$5,465.00	9
Blackburn	1	16	1,836.36	9
Candle	1	12	[1] 4,115.00	9
Charcoal Point	1	31	1,502.65	9
Chatanika	1	15	2,065.00	9
Chichagof	1	14	1,411.25	9
Chignik	1	18	[1] 3,531.37	9
Chilkat Valley	1	11	1,251.00	8
Chitina	1	4	764.68	4
Council	1	12	2,352.52	9
Craig	1	37	2,207.65	9
Deering	1	21	2,400.00	9
Eagle River	1	4	780.28	5
Ellamar	1	13	1,748.50	9
Esha	1	17	1,906.36	9
Fairview	1	10	[1] 2,835.00	9
Finger Lake	1	6	970.00	5
Fortuna Ledge	1	18	2,086.65	9
Fox	1	15	1,934.36	9
Girdwood	1	14	1,976.56	9
Haycock	1	23	2,788.54	9
Hope	1	11	1,410.10	9
Kasaan	1	32	1,795.00	9
Katalla	1	13	1,601.00	9
Kenai	2	82	5,005.00	9
Kiana	1	19	2,625.00	9
Kodiak	4	101	7,075.48	9
Latouche	2	42	3,598.11	9
Longwood	2	59	3,004.98	9
Loring	1	19	1,183.07	9
McCarthy	1	23	2,458.35	9
McGrath	1	11	[1] 3,000.00	6
Ninilchic	1	26	1,746.21	9
Nushagak	1	16	1,570.00	9

[1] New school buildings were erected.

Statistics of white and mixed schools outside of incorporated towns for the school year 1919–20—Continued.

District.	Number of teachers.	Total enrollment.	Cost of maintenance.	Term (months).
Otter	1	21	$2,332.00	9
Ouzinkie	1	30	1,388.27	9
Perseverance	1	11	1,499.54	9
Ruby	1	22	2,205.25	9
St. Michael	1	17	1,999.54	9
Sanak	1	19	2,159.18	6
Scow Bay	1	28	1,630.12	9
Seldovia	2	57	3,620.35	9
Sitka	3	81	4,637.60	9
Sulzer	1	5	1,372.58	9
Teller	1	23	2,219.38	9
Tenakee	1	21	1,720.96	9
Thane	2	49	3,059.98	9
Tofty	1	8	2,266.00	10
Treadwell	2	48	3,340.50	9
Unga	1	50	2,362.93	9
Ward's Cove	1	7	[1] 2,644.65	6.75
Wiseman	1	11	[1] 4,000.00	9
Total	65	1,357	126,519.86	.....

[1] New school buildings were erected.

SCHOOLS OUTSIDE OF INCORPORATED TOWNS.

For the year 1919–20 schools were maintained in 52 districts outside of incorporated towns and incorporated school districts. The 52 schools employed 65 teachers and had an enrollment of 1,357, as compared with 1,209 the previous year. The average number of pupils per school was 26, as compared with 25.7 the previous year. A total of $126,519.86 was expended for maintenance, at an average cost of $2,433.07 per school, as compared with $2,332.99 for the previous year. The average cost per pupil was $93.23, as compared with $90.69 for the previous year.

CITIZENSHIP NIGHT SCHOOLS.

During the school year 1919–20, 11 communities took advantage of the provisions of the citizenship night-school law. The total enrollment in these schools was 408, this number representing 35 different nationalities.

Citizenship night-school report, 1919–20.

School.	Enrollment.			Average attendance per session.	Number of months of school.	Number of sessions per week.	Length of session.
	Men.	Women.	Total.				
Anchorage	18	1	19	8.34	6	4	2 hours.
Blackburn	149	.....	149	43.27	6	4	2½ hours.
Eska	28	.....	28	13.02	5	3	2 hours.
Fairbanks	21	8	29	10.82	5	4	Do.
Juneau	8	7	15	8.97	4½	2	2½ hours.
Latouche	51	.....	51	15.52	6	3	2 hours.
Nenana	24	1	25	10.00	3¾	4	Do.
Nome	15	6	21	8.00	5	3	Do.
Perseverance	37	.....	37	9.09	6	4	Do.
Petersburg	22	.....	22	10.00	2	3	2½ hours.
Wrangell	10	2	12	8.75	4	2	2 hours.
Total	383	25	408	.....	.....	.....	

Citizenship night-school report, 1919–20—Continued.

School.	Number in attendance who are citizens of the United States.	Number who have taken out first papers only.	Nationalities represented in enrollment.	Number of instructors.	Number of subjects taught.	Cost of maintenance.
Anchorage	5	4	11	1	6	$500.00
Blackburn	8	11	24	3	9	817.84
Eska	15	5	9	1	5	265.00
Fairbanks	6	7	12	1	6	584.00
Juneau	9	4	6	[1] 2	6	201.50
Latouche	13	4	15	[1] 2	6	345.25
Nenana	8	6	15	1	7	480.00
Nome						378.00
Perseverance	2	12	10	1	7	400.00
Petersburg	10	8	2	1	7	140.00
Wrangell		10	6	1	6	160.00
Total	76	71		14		4,271.59

[1] Two instructors divided between them the work and salary of one instructor.

Nationalities.	Number of each.	Nationalities.	Number of each.
Alaska native	22	Japanese	13
American	27	Lithuanian	2
Austrian	12	Mexican	5
Barbados	1	Montenegro	20
Belgian	3	Norwegian	52
Bohemian	1	Polish	6
Bulgarian	7	Rumanian	2
Canadian	7	Russian	28
Croatian	2	Scotch	1
Danish	5	Serbian	20
English	4	Slav	1
Finnish	27	Spanish	5
French	4	Spanish-French	1
German	11	Swedish	32
Greek	31	Swiss	3
Holland	1	Syrian	1
Hungarian	1		
Irish	7	Total	387
Italian	22		

Subjects presented: Arithmetic, bookkeeping, civics, commercial arithmetic, English, geography, grammar, hygiene, penmanship, phonics, reading, spelling, United States Constitution, and United States history.

CORPORATIONS.

On July 1, 1919, there were 242 domestic and 456 foreign corporations transacting business within the Territory, a total of 698. During the fiscal year 1920 there were 43 new corporations formed and 34 foreign corporations registered. There were 46 domestic and 33 foreign corporations dissolved, making a total number of 696 still transacting business, a net loss for the year of 2.

ALASKA FUND.

The revenues derived by the Federal Government from business and trade licenses outside of incorporated towns are collected by the clerks of the district courts, deposited to the credit of the Treasurer of the United States, and by him credited to the Alaska fund, under the act of Congress approved January 27, 1905. Sixty-five per cent of the money paid into this fund is appropriated for the construction

and repair of roads and trails outside of incorporated towns and spent under the direction of the Board of Alaska Road Commissioners, 25 per cent for the maintenance of schools outside of incorporated towns, and 10 per cent for the relief of indigents, disbursed by the Federal judges, under the act of Congress approved March 3, 1913.

The sums collected during the fiscal year 1920, and a comparison with the previous fiscal year, are shown in the following statement:

Division.	1919	1920	Increase.	Decrease.	Cash payment.
First	$112,809.97	$115,928.81	$3,118.84		$107,988.01
Second	8,495.62	7,217.03		$1,278.59	7,217.03
Third	148,988.86	65,386.58		83,602.28	59,304.58
Fourth	10,612.35	11,476.56	864.21		11,476.56
Total	280,906.80	200,008.98		80,897.82	185,986.18

The net amount of cash turned into the Treasury in the fiscal year 1920 for the account of the Alaska fund in the first division was, however, only $107,988.01, the difference amounting to $7,940 representing a rebate made and credited to certain salmon canneries for the release of salmon fry in lieu of cash payment of taxes on their output and refund of excess payments. The net amount of cash from the third division for the same reasons was only $59,304.58. The great decrease of revenue in the third division is due to a small salmon pack which was only about one-third of normal. A small decrease is shown in the second division, due to curtailment of industries. In the first and fourth divisions small increases are shown.

The act approved June 26, 1906, provides that the catch and pack of salmon in Alaska by owners of private salmon hatcheries operated in Alaska shall be exempt from all license fees and taxation of every nature at the rate of 10 cases of salmon to every thousand red or king salmon fry liberated; that is, a rebate of 40 cents is allowed on every thousand red or king salmon fry released.

The total revenues received from taxes levied by the Federal Government within incorporated towns, from business and trade licenses, which were paid by the clerks of the district courts directly to the treasurers of the towns, were as follows:

Division.	1919	1920	Increase.	Decrease.
First	$40,426.51	$40,978.65	$552.14	
Second	5,029.00	4,035.53		$993.47
Third	19,996.13	17,650.46		2,345.67
Fourth	2,777.67	5,942.31	3,164.64	
Total	68,229.31	68,606.95	377.64	

Besides the revenues derived by the Federal Government from business and trade licenses of all kinds in incorporated towns and outside of incorporated towns, taxes are levied on fisheries products as follows: Canned salmon, 4 cents per case; pickled salmon, 10 cents per barrel; salt salmon in bulk, 5 cents per hundredweight; fish oil, 10 cents per barrel; fertilizer, 20 cents per ton.

At least that portion of the Alaska fund devoted to school purposes should be turned into the Territorial treasury, as since the passage of the act authorizing the fund the Territory has provided for the establishment and maintenance of schools outside of incorporated towns under the jurisdiction of the board of education and a separate school system under the governor only leads to confusion.

TERRITORIAL FINANCES.

The Territory has its own fiscal system, controlled by laws enacted by the Territorial legislature, which is entirely separate and apart from the revenues received by the Federal Government from business and trade licenses and which are covered into and disbursed from the Alaska fund in the Federal Treasury. Territorial revenue acts have been amended from time to time, the act in effect at this time, chapter 33, Session Laws of Alaska, 1919, imposing the following license taxes:

Doctors—including persons practicing medicine, surgery, or osteopathy—attorneys at law, dentists, and optometrists, $10 per annum; automobiles operating for hire, $5 per annum; bakeries doing a business in excess of $500 per annum, $15 per annum; electric light and power plants, one-half of 1 per cent of the gross receipts in excess of $2,500 and of the net profits from supplies sold; employment agencies operating for hire, $500 per annum; clam and herring canneries, 2 cents per case; salmon canneries, 5½ cents per case on kings, reds, or sockeyes, 3½ cents per case on medium reds, 3 cents per case on all others, and an additional license tax of 1 per cent on net income; fish traps, fixed or floating, so-called dummy traps included, $100 per annum; salteries, 10 cents per hundred pounds on red king salmon, 5 cents per hundred pounds on white king salmon, 10 cents per hundred pounds on codfish, 2½ cents per hundred pounds on all other salted or mild cured fish, except herring; cold-storage plants, a graded tax of from $10 to $500 per annum, according to amount of business done; fish-oil works and fertilizer and fish-meal plants using herring in whole or in part, $2 per barrel of oil and $2 per ton of fertilizer or fish meal; whale-oil plants, $1 per barrel of oil; laundries, a graded tax of from $25 to $75 per annum, according to amount of business done; meat markets, a graded tax of from $50 to $500 per annum, according to amount of business done; mercantile establishments doing a business of more than $100,000 per annum, $50 per annum on each $20,000 of excess; mining, 1 per cent of net income in excess of $5,000; ships and shipping vessels, registered in Alaska and engaged in local freight and transportation business or business for hire, $1 per net ton, customhouse measurement; telephone companies, one-half of 1 per cent per annum on gross receipts in excess of $1,500; waterworks, one-half of 1 per cent per annum on gross receipts in excess of $2,500; public messengers, $25 per annum.

The Territory is in receipt of other revenues in addition to license taxes, railroads paying tax of 1 per cent of gross receipts, 25 per cent of the receipts of the national forests in the Territory accruing to it, and a poll-tax act, levying for school purposes a tax of $5 per annum on all men between ages of 21 and 50 years, is in effect. Estates of deceased persons without heirs escheat to the Territory, and the legis-

lature of 1919 passed inheritance and profits tax laws, but under which only small results have been thus far realized.

License taxes collected and other revenues accruing to the Territory are covered into and disbursed from the Territorial treasury, the fiscal year of the Territory corresponding to the calendar year. The condition of the Territorial treasury for the year ended December 31, 1919, was as follows: Balance of cash on hand January 1, 1919, $533,842.81; total receipts from all sources, $555,887.43; total disbursements under appropriations made by the Territorial legislature, $675,387.03; balance of cash on hand December 31, 1919, $414,343.21.

TERRITORIAL BANKS.

At the close of the fiscal year covered by this report there were 15 Territorial and 3 national banks in the Territory, the number of each remaining the same as at the close of the previous fiscal year, June 30, 1919. During the year, however, a Territorial bank at Fairbanks voluntarily liquidated its affairs; one opened at Hyder to meet the demands of business resulting from developments in the Salmon River mining district. A banking and trust company was organized at Ketchikan under the trust company act of 1917, but was forced into liquidation of its affairs after a few months of operation because of internal dissensions and misrepresentation of its paid-in capital stock.

The Territorial banking board, composed of the governor, the secretary and the treasurer of the Territory, continued its supervision over Territorial banking institutions. All such were examined during the year and made reports of condition and published statements under call as required by law. Territorial banks are located at Ketchikan, Wrangell, Petersburg, Douglas, Juneau, Skagway, Cordova (2), Valdez, Seward, Anchorage (2), Iditarod, Nome, and Hyder. National banks are located at Juneau, Seward, and Fairbanks.

Depressed business conditions prevailed in most parts of the Territory throughout the year, the high prices of all commodities and labor continuing to prove most discouraging to all new commercial developments. Deposits in the several Territorial banks at call of June 19, 1920, aggregated $6,455,829.78, as compared with aggregate deposits of $6,147,172.72 at corresponding call of June 30, 1919. At the call of June 19, 1920, the combined capital of all Territorial banks aggregated $655,000, as compared with aggregate capital of $745,000 of the year previous, combined surplus and undivided profits aggregating $312,742.43, as compared with aggregate of $360,704.63 of the year previous.

On June 30, 1920, the total deposits of the three national banks aggregated $2,044,951.37. This amount, added to the deposits of the Territorial banks as reported under date of June 19, equals a total deposit in all the banks of the Territory of $8,500,781.15.

INCORPORATED TOWNS.

There are at present 16 incorporated towns in Alaska, but some of the town organizations are practically inactive, merely functioning as such for the purpose of collecting taxes to maintain schools.

Reports received from 14 towns show a total assessed valuation of $15,820,479. The rates of taxation on the assessed valuation range from 1 to 2 per cent, the average being 1.6 per cent.

Statistics of towns.

Town.	Date of incorporation.	Name of mayor.	Assessed valuation.	Rate of taxation, per cent.	Population, 1920 Census.
Cordova	1909	A. J. Adams	$1,398,445	1	955
Douglas	1902	F. A. J. Galwas	425,267	1.7	919
Eagle	1901	Wm. Russell	23,831	2	158
Fairbanks	1903	A. L. Wilbur	2,472,986	1.5	1,158
Haines	1910	N. G. Hansen	182,600	1.25	314
Iditarod	1911		(1)	(1)	50
Juneau	1900	R. E. Robertson	3,899,568	2	3,126
Ketchikan	1905	D. W. Hunt	1,630,000	2	2,854
Nome	1901	J. F. Rice	1,166,000	2	854
Petersburg	1910	T. S. Elsemore	433,555	1.5	880
Seward	1912	E. E. Chamberlain	1,534,255	1.2	652
Sitka	[2] 1913	R. W. De Armond	247,750	1	1,194
Skagway	1900	E. J. Shaw	603,000	1.5	494
Tanana	1912	Jos. Anicich	(1)	(1)	212
Valdez	1901	Ed. Wood	549,722	2	466
Wrangell	1904	John G. Grant	253,500	2	864

[1] No valuation made and no tax levied. [2] Sitka was incorporated as a town of the first class in 1920.

HEALTH CONDITIONS.

As a whole, the white population of Alaska is remarkably healthy. With the exception of the severe epidemics of Spanish influenza which swept over the Territory, there have been only occasional outbreaks of epidemic diseases, which have been successfully localized. Smallpox for a time threatened to become widespread among the natives of southeastern Alaska, but with the assistance of the Public Health Service was successfully stamped out. It also occurred in a few places in southwestern Alaska. The origin of the disease was traced to Seattle, where there have been an unusually large number of cases. Typhoid is now rare, only two cases being reported during the 12-month period. Tuberculosis was seldom heard of among the white population until the visitation of influenza, and the few cases since appearing have been traced to this source. Children are unusually healthy and hardy.

EPIDEMICS.

The most serious epidemic of the year was the one of influenza, which attacked the interior towns of the Tanana and Yukon Valleys. In Fairbanks it is estimated that nearly two-thirds of the population was stricken; in Nenana conditions were nearly as bad and resulted in more deaths due in part to the failure of many laborers along the line of the Government railroad to present themselves at the hospital until pneumonia had already set in. The assistant commissioner of health for the fourth division was untiring in his efforts, and through his activities in establishing quarantine was able to protect many small communities remote from medical and hospital facilities. In dealing with the scourge the American Red Cross was most helpful, and the Territory lent such aid as was possible through the health and sanitation fund and the fund for the relief of destitution.

I wish to pay grateful respect to the volunteer nurses, who spared themselves in no way, and particularly I wish to pay respect to the memory of Mrs. M. J. Cooney, of Nenana, who, worn out by days of unselfish devotion, was at last a victim.

As in other epidemics of influenza, the native was particularly susceptible and succumbed easily.

The creation of the office of commissioner of health by the last legislature and the enactment of additional health laws has rendered it possible to more easily keep in touch with all health conditions. The commissioner receives the close cooperation of all doctors and of the school-teachers in remote districts. An attempt is now being made to stamp out venereal diseases, and a number of cases were isolated until the danger of infection was past.

Among the natives health and sanitary conditions are not particularly encouraging, except in the villages where the inhabitants are living a civilized life. There is great room for enlargement and improvement in the medical service rendered the natives by the Government.

The Territorial law provides that the office of the commissioner of health may be filled by an officer of the Public Health Service. It is hoped that such an officer may be detailed to Alaska and thus combine Federal and Territorial authority.

RELIEF MEASURES.

The Territory provides generously for the relief of the aged and indigent, for dependent children, for the rescue and relief of lost persons and for the Pioneers' Home at Sitka.

The Pioneers' Home is the only charitable institution in Alaska supported entirely by the Territory. Any worthy man incapable of supporting himself who is qualified by five years of previous residence in Alaska may apply to the board of trustees for admission. It is the aim of the board to conduct the home with a minimum of rules and to make the inmates feel that they are in every way welcome. Under permission from the Secretary of the Navy the buildings formerly occupied by a detachment of marines are now devoted to the use of the home.

A small modern hospital is being constructed for the home, as many of the inmates are bedridden and the rooms in the main building, now used as an infirmary, are too crowded and not strictly sanitary. In the basement of the new building will be established a complete laundry for general institutional purposes.

The board of trustees of the Pioneers' Home consists of the governor, as chairman, and two members. The same board acts in granting pensions to other aged pioneers, both men and women, who are capable of partial self-support. Monthly pensions, not exceeding $12.50 for men and $25 for women, are granted to indigent residents of Alaska who are not less than 65 years of age, if men, and 60 years of age, if women, and who have resided in the Territory for not less than 15 consecutive years.

The members of the order of Pioneers of Alaska have been subscribing a small sum monthly to provide for certain little amusements and luxuries for inmates of the home which can not be furnished under the territorial appropriation.

During 1919 there were 34 admissions to the home, 12 inmates died, 7 were discharged, and 2 were sent to the Morningside Hospital for the insane at Portland, Oreg. On January 1, 1920, there were 74 inmates.

On January 1, 1920, there were 12 women and 124 men, a total of 136, outside of the home, on the pension rolls of the Territory.

I recommend the transfer to the Territory by Congress of the buildings and grounds now abandoned by the Navy Department, so that the Territory will feel justified in making needed improvements.

TERRITORIAL BUREAU OF PUBLICITY.

The Territorial bureau of publicity, now in the third year of its existence, is broadly and generally recognized as an accurate source of information concerning Alaska, and the past year has witnessed activity in the duties of the bureau. Every newspaper in the United States having in excess of 1,000 circulation is served with the Bi-Monthly Bulletin issued by the bureau, and the result is timely and effective advertising in all parts of the country, which, in turn, elicits interest in Alaska and causes thousands of letters of inquiry to be received by the bureau. Literature concerning the Territory is requested by nine of every ten persons writing, and the bureau has distributed within the past year approximately 85,000 pieces of Alaskan literature. While there is no way of determining just how many persons have been induced by the bureau of publicity to come to the Territory within the past year, it is positively known that several families, hundreds of workingmen, and scores of working women have come as the result of the activities of the bureau. With the announcement of contemplated enlarged operations by the Alaska Road Commission, an increase in the number of letters from people interested in agriculture and in securing farms in the Territory is noted.

One of the attractions of the office of the bureau is a cabinet containing agricultural products of the country, etc. Many stock growers are also earnestly seeking information as to the possibilities of Alaska for that industry.

The central labor bureau maintained in connection with the bureau of publicity has expanded until it has become a sort of labor clearing house for all Alaska. Through this agency positions in various parts of the Territory for fully 600 men and 150 women have been secured within the past year. Alaskans desiring positions in any part of Alaska, as well as those desiring to come from the States to secure positions in Alaska, all write to the bureau of publicity, Juneau, Alaska.

ALASKA HISTORICAL ASSOCIATION.

For years past Alaska has been the collecting ground for museums, both in the United States and abroad. The consequence is that Alaska has been nearly stripped of historical relics. In an endeavor to preserve to the Territory an exhibit of articles illustrative of bygone days and of present conditions, both historical and economic, the Alaska Historical Association has been formed. The object

of the association is to collect for the Territory all objects of historical, geographical, and economic value; to publish papers relating to the history of Alaska and to repair and preserve historic edifices or monuments.

A nucleus of a museum has been formed in the purchase of part of the collection of Eskimo antiquities belonging to Dr. Daniel S. Neuman, of Nome. Dr. Neuman has also kindly loaned the balance of his collection. As far as possible the collections are exhibited in four small rooms in Juneau, but it is hoped that the quarters can be enlarged before long, as there are of necessity many articles, not only of the Neuman collection but of the Territory, which can not be shown for lack of space.

A conservative estimate of the value of the collection to date is $50,000. When a fireproof building is provided, the association is promised many valuable articles and collections. It is then proposed to move the historical library to the same building. This valuable library is now housed in the governor's office, which is an absolute fire trap.

PUBLIC BUILDINGS.

There is great need for a fireproof public building at the capital. The various Federal offices are scattered all over town, largely in frame structures, which may at any moment be destroyed by fire, together with all the valuable records. The offices should all be grouped together under one roof, not only as a precaution against fire, but to facilitate business. The rent now being paid would nearly pay interest on the investment.

An allotment of $1,400 was procured from the Treasury Department for greatly needed repairs on the governor's office, which has long been condemned. The foundation was found to be almost entirely rotted out and the whole building was badly out of plumb. By lining the inside walls the house has been made habitable in three rooms except during the coldest weather.

An appropriation exists for the construction of a public building at Juneau of approximately $175,000. The amount was considered insufficient for a completed building and was not used. If a building could be designed on the unit system, with one unit to cost not more than the amount available, practically all of the present offices could be housed. The other units could be built as money is available. In addition to the offices to be accommodated, space could be provided for the valuable collections of books and the Historical Museum, of which the governor is custodian.

An insufficient appropriation also exists for a public building at Cordova for which there is a crying need. I recommend the construction of a building under the funds available to accommodate such offices as are possible.

OFFICE OF THE GOVERNOR.

Attention has been called repeatedly, by both Republican and Democratic governors, to the inadequate support given to the office. The office is the clearing house for a great part of all Federal and Territorial business. Congress provides for a secretary to the gover-

nor only. The legislature has provided two clerks under the fiction that they are to be used in the transaction of Territorial business. An appropriation should be made for the salary of one clerk in addition to that of the secretary.

The last appropriation act allowed an increase in the salary of the secretary of $250 per annum, and for general maintenance and contingent expenses, including salary of janitor, etc., an increase of $1,250, bringing the total to $7,500, which equals the pre-war allowance cut during the war to $6,000. This will not cover expenses, even though the greatest econmy is exercised. Coal has risen $5 per ton in the past three years, with a further increase threatened, and everything else in proportion, including transportation and expense of travel. The office of the governor should not be expected to be conducted on the same allowance as before the war. In the matter of reimbursement of expenses incurred in traveling on official business, the governor should be allowed at least as much as are the district judges and certain members of other executive departments.

SUMMARY OF LEGISLATIVE AND REGULATORY PROGRESS.

Beneficial new legislation and regulations affecting Alaska are noted in part as follows:

1. Enactment of oil-leasing law and the fixing of minimum royalties to encourage development.
2. Enactment of water-power leasing law.
3. Elimination, with the approval of the Secretary of the Interior, of the reserved 80-rod strip along navigable waters.
4. Removal of restrictions on the export of birch timber from the public domain.
5. Reimbursement of chrome producers for losses incurred while operating under encouragement from the Government.
6. Appropriation for investigation of reindeer industry.
7. Slightly increased appropriations for the protection of game, care of Alaska insane, coast and geodetic surveys, Bureau of Education, etc.
8. Transfer of jurisdiction over fur-bearing animals from the Department of Commerce to the Department of Agriculture.
9. Amendment of regulations to permit certain child labor in canneries.
10. Increased appropriations for roads and trails.
11. Authorization of increased appropriation for the construction of the Government railroad.
12. Slightly increased telegraph service.

SUMMARY OF RECOMMENDATIONS.

Enactment of the Alaska development board bill.

Enactment of the transportation-in-Alaska bill.

Enactment of the bill placing a tax on manufactured gold and for the payment of a premium therefrom to producers.

Amendment of organic act to grant to Alaska full Territorial powers of legislation.

Transfer to Territory of jurisdiction over fish, game, and land fur-bearing animals.

Transfer of abandoned marine barracks at Sitka to Territory.

Amendment of coal-leasing law, exempting lessees from the payment of rentals and royalties for the first five years.

Establishment of a Federal police force for Alaska.

Extension of Federal farm loan act to Alaska.

Extension of Federal aid road act to Alaska.

Transfer of the Alaska fund from the Federal to the Territorial treasury.

Authorization, under appropriations already made, for the construction of Federal buildings at the capital and at Cordova.

Transfer to the Territory of the net proceeds of sales of timber from the national forests.

Territorial participation in the net proceeds of sales of seal and fox skins from the Pribilof Islands.

Consolidation of the various branches of the General Land Office in Alaska and the creation of the office of secretary of Alaska separate from that of the surveyor general.

Appropriations for the building of feeder wagon roads to the Government railroad.

Increased appropriations for the Bureau of Fisheries, and the establishment of an agent in Alaska who is authorized to speak for the bureau.

Enlarged activities of the Bureau of Mines.

Restoration of prewar appropriation to the United States Geological Survey for work in Alaska.

Improvement of Wrangell Narrows, Dry Straits, the construction of a breakwater at Wrangell, and the construction of a Government dock at Juneau.

Improvement of the mail service and the restoration of the mail contract system.

Incarceration of homicidal insane at St. Elizabeths.

Restoration to the public domain of useless withdrawals and reserves.

Establishment of a forest district for Alaska.

Appropriations for the Mount McKinley National Park.

Increased appropriations for lighthouses, coast surveys, Bureau of Education, game wardens, for the suppression of the liquor traffic, office of the governor.

Authorization and increased appropriations for the Alaska Road Commission, enabling them to inaugurate a 10-year road-building program.

Enlarged telegraph service.

Assignment of Navy or Coast Guard ship to continuous duty in Alaska.

Loan of blooded stock by Department of Agriculture to farmers.

Detail of Public Health officer to Alaska as commissioner of health.

Modification of forestry regulations covering leases of timber to pulp and paper manufacturers.

APPENDIXES.

Appendix A.

STATEMENT OF LIBRARY AND MUSEUM FUND.

Receipts and disbursements of the Alaska Historical Library and Museum fund from July 1, 1919, to June 30, 1920.

RECEIPTS.

Date.	Received from—	Title or business.	Amount.
1919.			
July 1	Balance on hand		$12,756.24
1	Harold F. Dawes	Notary public	10.00
3	S. J. Kane	do	10.00
7	Board of Home Missions (Presbyterian)	Annual statements	2.00
7	Sanborn Cutting Co	do	1.00
7	Alaska Consolidated Oil Fields	do	6.00
8	Associated Oil Co	do	1.00
8	Ingersoll-Rand Co	do	1.00
9	Fred Swanson	Notary public	10.00
9	Charles A. Traeger	do	10.00
15	R. E. Robertson	Certificate with seal	2.00
24	John H. Kilbuck	Notary public	10.00
24	Henry W. Hutchings	do	10.00
28	Alaska Free Gold Mining Co	Annual statement	1.00
28	E. F. Medley	Certificate with seal	2.00
30	Harry F. Morton	Notary public	10.00
30	Elizabeth Hoffman	do	10.00
30	Alaska Juneau Gold Mining Co	Annual statement	1.00
Aug. 4	Erich Lucas	Notary public	10.00
14	Ella F. Braman	Commissioner of deeds	5.00
14	O. D. Cochran	Notary public	10.00
15	C. G. Hage	do	10.00
16	W. H. Case	do	10.00
31	Fred Harrison	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of August, 1919.		5.00
Sept. 5	Theodore A. Hellenthal	Notary public	10.00
8	C. W. Hawksworth	do	10.00
8	Alfred J. Ghezzi	do	10.00
8	M. M. Cole	do	10.00
11	J. E. Barragher	do	10.00
18	Eben D. Evans	do	10.00
30	Ina S. Liebhardt	do	10.00
30	P. J. Murphy	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of September, 1919.		4.00
Oct. 4	J. H. Davis	Notary public	10.00
8	Curtis R. Morford	do	10.00
10	J. F. Mullen	Member of bar	10.00
10	H. F. Dawes	do	10.00
15	Oren F. Hill	Notary public	10.00
25	John W. Gardner	Member of bar	10.00
29	Arthur Frame	Notary public	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of October, 1919.		2.00
Nov. 1	Sol Ripinsky	Notary public	10.00
1	Sherman Duggan	do	10.00
1	Loretta C. Hill	do	10.00
3	Mrs. R. C. M. Shepard	do	10.00
4	John F. Mullen	do	10.00
7	J. F. Major	do	10.00
11	Cecil H. Clegg	do	10.00
11	Howard J. Atwell	do	10.00
17	Frederick L. Forbes	do	10.00

Receipts and disbursements of the Alaska Historical Library and Museum fund from July 1, 1919, to June 30, 1920—Continued.

RECEIPTS—Continued.

Date.	Received from—	Title or business.	Amount.
1909.			
Nov. 17	James Coughlin	Notary public	$10.00
19	Chas. W. Thornton	do	10.00
26	Ernest B. Collins	do	10.00
Dec. 2	Charles B. Allen	do	10.00
6	Geo. F. Cramer	do	10.00
29	G. G. Geraghty	do	10.00
	R. H. Stevens	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of December, 1919		60.00
1920.			
Jan. 2	Hugo C. Johnson	Notary public	10.00
5	J. W. Kehoe	Member of bar	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of January, 1920.		27.00
Feb. 2	Martin Conway	Notary public	10.00
9	J. J. Hillard	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of February, 1920.		70.00
Mar. 1	Charles H. Kraemer	Notary public	10.00
5	John E. Meals	do	10.00
	George W. Hoffman	do	10.00
	Charles E. Jones	do	10.00
	Frederick Nelson	do	10.00
	F. E. Brentlinger	do	10.00
	Ralph N. Moyer	do	10.00
	B. A. Roselle	do	10.00
16	C. H. Sundmacher	do	10.00
18	Lee C. Gault	do	10.00
22	J. E. Rivard	do	10.00
24	M. H. Lynch	do	10.00
25	Hubert P. Crowther	do	10.00
31	M. J. Conroy	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of March, 1920.		117.00
Apr. 10	J. M. Elmer	Notary public	10.00
	Geo. F. Marsh	do	10.00
	Ethel C. Marsh	do	10.00
12	Samuel Foss	do	10.00
15	Lolita E. Wilson	do	10.00
17	Peter McMullen	do	10.00
21	Geo. D. Campbell	do	10.00
23	Hector McLean	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of April, 1920.		37.00
May 13	Lester Ball	Commissioner of deeds	5.00
4	Mathew O. Carlson	Notary public	10.00
12	Thomas A. Wade	do	10.00
17	Henry Cox	do	10.00
18	H. K. Carlisle	do	10.00
18	Jay F. Kelly	do	10.00
28	Wm. H. Rager	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of May 1920.		22.00
June 1	James M. Shoup	Notary public	10.00
9	Rodney S. Dimnick	do	10.00
9	Sid S. Bettman	do	10.00
15	John W Leadbetter	do	10.00
16	Albert Wile	do	10.00
21	Hilkey Robinson	do	10.00
22	Thomas J. DeVane	do	10.00
22	Gladys Salladay	do	10.00
25	J. J. Jones	do	10.00
28	Louis K. Pratt	do	10 00
30	Ada White	do	10.00
	Receipts from foreign and domestic corporations and the issuance of certificates with seal affixed for the month of June, 1920.		5.00
Apr. 1	Annual interest on certificate of deposit, First National Bank, Juneau, Alaska, $9,000.		360.00
	Total receipts		14,308.24

Receipts and disbursements of the Alaska Historical Library and Museum fund from July 1, 1919, to June 30, 1920—Continued.

DISBURSEMENTS.

Date.	Paid to—	Voucher No.	Amount.
1919.			
July 10	Wrangell Sentinel	50	$3.00
10	Alaska Daily Empire	51	12.00
10	Nome Industrial Worker	52	15.00
10	The Page Co	53	4.00
10	Alaska Dispatch	54	5.00
22	Valdez Miner	55	3.50
22	Cordova Times	56	10.00
22	Chitina Leader	57	3.00
22	Seattle Times	58	18.00
22	Daily Alaskan	59	9.00
22	Post Intelligencer	60	9.00
22	Petersburg Report	61	3.00
28	McCarthy Weekly News	62	7.50
28	Juneau Transfer Co	63	.75
31	J. V. Ennette	64	25.00
31	Alaska Citizen	65	20.00
31	J. Wiley & Sons (Inc.)	66	2.25
Aug. 5	United States Fidelity & Guaranty Co	67	13.50
Nov. 3	Kaser & Davis Transfer Co	1	.70
3	A. Eikland	2	42.50
3	Nenana News	3	15.00
3	Juneau Transfer Co	4	.50
3	C. W. Young Co	5	110.50
3	Fairbanks Daily News Miner	6	12.00
3	Ketchikan Alaska Chronicle	7	10.00
3	J. V. Ennette	8	25.00
3	Seward Gateway	9	10.00
3	Nome Tri-Weekly Nugget	10	20.00
3	A. Eikland	11	166.00
3	Cash Cole Transfer	12	1.75
3	Juneau Transfer Co	13	5.00
3	Chas. Scribners' Sons	14	2.70
3	J. V. Ennette	15	25.00
3	Geo. M. Simpkins	16	100.00
3	Pacific Fisherman	17	3.00
3	J. V. Ennette	18	25.00
5	American Railway Express Co	19	13.15
5	Robert Kirk	20	25.50
24	Alaska Electric Light & Power Co	21	2.90
29	J. L. Clarke	22	25.00
29	A. P. Kashevaroff	23	100.00
Dec. 8	Gaylord Bros	24	13.55
8	A. F. Knight	25	1.50
8	Douglas Island News	26	3.00
8	Britts Pharmacy	27	.50
15	Aldine Book Co	28	13.88
15	....do	29	16.38
15	Juneau Transfer Co	30	2.50
23	Hyder-Alaska Miner	31	5.00
23	B. M. Behrends Co	32	1.65
23	A. Eikland	33	92.00
31	J. L. Clarke	34	25.00
31	Rev. A. P. Kashevaroff	35	100.00
1920.			
Jan. 9	Alaska Weekly Citizen	36	10.00
9	Winter & Pond Co	37	55.00
9	C. E. Cartwright	38	2.00
16	Ketchikan Times	39	12.00
21	Juneau Transfer Co	40	3.75
21	National Geographic Society	41	2.50
23	A. P. Kashevaroff	42	63.33
31	J. L. Clarke	43	25.00
Feb. 5	Petersburg Weekly Report	44	3.00
5	C. S. Hubbell	45	7.09
Mar. 6	The Pathfinder	46	3.00
6	American Railway Express Co	47	1.77
6	J. L. Clarke	48	25.00
6	Pacific Fisherman	49	1.00
31	J. K. Gill Co	50	5.63
31	J. L. Clarke	51	25.00
31	A. P. Kashevaroff	52	100.00
Apr. 10	Alaska Daily and Sunday Capital	53	12.00
22	E. S. Hewitt & Co	54	13.50
22	Geo. M. Simpkins	55	215.00
30	J. V. Ennette	56	25.00
30	A. P. Kashevaroff	57	100.00
30	G. P. Putman's Sons	58	2.50

Receipts and disbursements of the Alaska Historical Library and Museum fund from July 1, 1919, to June 30, 1920—Continued.

DISBURSEMENTS—Continued.

Date.	Paid to—	Voucher No.	Amount.
1920.			
May 29	A. P. Kashevaroff	59	$100.00
29	J. V. Ennette	60	25.00
29	Library Bureau	61	1.84
June 8	Dr. D. S. Neuman	62	5,000.00
16	U. S. Fidelity & Guaranty Co	63	7.00
21	W. H. Lowdermilk & Co	64	47.15
30	A. P. Kashevaroff	65	100.00
30	J. V. Ennette	66	25.00
			7,198.72

Total receipts	$14,308.24
Total disbursements	7,198.72
Balance, July 1, 1920	7,109.52

Appendix B.

Register of Federal and Territorial officials and employees.

Federal Government.

INTERIOR DEPARTMENT, GOVERNOR'S OFFICE, JUNEAU.

Governor.—Thomas Riggs, jr.
Secretary to the governor.—G. W. Folta.

UNITED STATES SURVEYOR GENERAL'S OFFICE, JUNEAU.

Surveyor general.—Robert J. Sommers.
Chief clerk.—Martin George.
Chief draftsman.—Edward P. Kendall.
Draftsman.—Byron L. Fitch.
Financial and general clerk.—Charles E. Naghel.
Typewriter.—Nina J. Ford.
Messenger.—Marcus E. Russell.

FIELD.

United States deputy surveyors.—Arthur G. Blake, Nome; H. P. M. Birkinbine, Seattle, Wash.; H. P. Crowther, Ketchikan; Raymond F. Grefe, Juneau; William A. Hesse, Cordova; Charles S. Hubbell, Seattle, Wash.; Henry C. Ingram, Fairbanks; Frank A. Metcalf, Juneau; D. E. Stubbs, Aniak; F. J. Wettrick, Seattle Wash.; Harold H. Waller, Seattle, Wash.

United States mineral surveyors.—Asa C. Baldwin, Seattle, Wash.; Arthur G. Blake, Nome; H. P. Crowther, Ketchikan; William W. Elmer, Portland, Oreg.; Raymond F. Grefe, Juneau; William A. Hesse, Cordova; Charles S. Hubbell, Seattle, Wash.; Henry C. Ingram, Fairbanks; Frank A. Metcalf, Juneau; John A. McQuinn, Latouche; O. Adrian Nelson, Chitina; Irving McK. Reed, Nome; D. B. Skinner, Port Blakeley, Wash.; D. E. Stubbs, Aniak; Harold H. Waller, Seattle, Wash.; F. J. Wettrick, Seattle, Wash.; John A. Wilson, Nome.

UNITED STATES LAND OFFICE.

Division No. 1.—Frank A. Boyle, register, Juneau; Miss E. A. Frisbee, clerk, Juneau.

Division No. 2.—Thomas McGann, ex officio register, Nome; E. R. Jordan, ex officio receiver, Nome.

Division No. 3.—Included in division No. 1.

Division No. 4.—H. Claude Kelly, ex officio register, Fairbanks; L. T. Erwin, ex officio receiver; Roscoe F. Washburn, clerk, Fairbanks.
Field division (headquarters, Juneau).—Chief, George A. Parks; special agent, Walter B. Heisel; timber cruiser, H. K. Carlisle; clerk and stenographer, Gilbert A. Tuben.

UNITED STATES GEOLOGICAL SURVEY.

Theodore Chapin, geologist (in charge of Geological Survey office), Anchorage.
George H. Canfield, assistant engineer (in charge of stream-gauging work in cooperation with the Forest Service), Juneau.

UNITED STATES BUREAU OF MINES.

United States Bureau of Mines experiment station, Fairbanks, Alaska.—J. A. Davis, superintendent; Paul Hopkins, analytical chemist and mineralogist; Karl T. Sparks, mining engineer; Mrs. L. R. Gillette, chief clerk; Geo. A. Landerking, mechanic.

UNITED STATES BUREAU OF EDUCATION.

SCHOOLS FOR NATIVES.

Commissioner of Education.—P. P. Claxton, Washington, D. C.
Superintendent of Education for Alaska.—W. T. Lopp, Seattle, Wash.
Supply agent.—H. C. Sinclair, Seattle, Wash.
Special disbursing agent.—C. C. Bestor, Seattle, Wash.
Superintendent southeastern district.—C. W. Hawkesworth, Juneau.
Superintendent southwestern district.—A. H. Miller, Anchorage.
Superintendent upper Yukon district.—F. L. Forbes, Tanana.
Superintendent western district.—J. H. Kilbuck, Akiak.
Superintendent Seward Peninsula district.—E. D. Evans, Nome.
Superintendent northwestern district.—J. H. Maguire, Kotzebue.
Physicians.—A. Drtina, Nushagak; H. C. Randle, Nulato; J. Venters, Akiak; C. Welch, Nome; L. P. Dawes, Juneau; W. H. Chase, Cordova; N. M. Cook, Kotzebue; W. A. Borland, Hoonah.

ALASKAN ENGINEERING COMMISSION.

ANCHORAGE.

Chairman.—Col. F. Mears.
Assistant chief in engineer, in charge southern division.—Wm. Gerig.
Engineer in charge, supply division.—H. P. Warren.
Examiner of accounts.—Burton H. Barndollar.
Engineer, maintenance of way and construction.—F. A. Hansen.
Bridge engineer.—Walter J. H. Fogelstrom.
Special disbursing agent.—Royden D. Chase.
Trainmaster.—John T. Cunningham.
General storekeeper.—W. R. Manning.
Chief accountant.—J. C. Seeley.
Receiving and forwarding agent.—William C. Cuningham.
Resident mining engineer.—Sumner S. Smith.
Chief surgeon.—Dr. J. B. Beeson.
Chief clerk.—Chas. L. Mason.
Acting manager, land and industrial department.—William B. Clayton.
Superintendent, telegraph and telephone department.—E. R. McFarland.

NENANA.

Engineer in charge northern division.—Frederick D. Browne.
Town-site manager.—Carl Schmidt.
Special disbursing agent.—Frank T. Doner.
Chief accountant.—J. E. McIntosh.
Storekeeper.—Robert S. Donaldson.
Chief surgeon.—Malcolm E. Smith.
Superintendent of transportation.—Walter B. Reaburn.

SEWARD.

Receiving and forwarding agent.—J. J. Ryan.
Assistant engineer.—G. W. Colwell.
Special disbursing agent.—Edgar R. Tarwater.
Surgeon.—J. H. Romig.

FAIRBANKS.

Superintendent and special disbursing agent.—John Raap.

GAME WARDENS.

Division No. 1.—J. C. Lund, Juneau; James H. Foster, Ketchikan; Charlie Klontech, Sitka.
Division No. 2.—Martin O. Solberg, Nome.
Division No. 3.—J. A. Baughman, Seward; Emil Berg, Kenai; Edward Young, Chitina; F. A. Martin, Anchorage.
Division No. 4.—L. F. Protzman, Fairbanks; James M. Burrows, Eureka; Robert E. Steel, Eagle.

SPECIAL OFFICERS FOR SUPPRESSION OF LIQUOR TRAFFIC AMONG NATIVES.

J. F. McDonald, Juneau; Thomas P. Killeen, Nome; Joseph A. Bourke, Valdez; T. M. Italio, Yakutat; John A. Moe, Fairbanks.

ALASKA HISTORICAL LIBRARY AND MUSEUM.

Custodian.—Gov. Thomas Riggs, jr.

DEPARTMENT OF JUSTICE.

DIVISION NO. 1.

Judge.—Robert W. Jennings, Juneau.
Court stenographer.—L. A. Green, Juneau.
Clerk of court.—J. W. Bell.
Deputy clerks.—Lafe E. Spray, Venetia F. Pugh, Juneau; James F. Warder, Ketchikan; Joseph J. F. Ward, Skagway; John T. Reed, Hyder.
Court librarian.—James F. Hurley, Juneau.
United States marshal.—Josias M. Tanner, Juneau.
Chief deputy.—W. W. Casey, jr., Juneau.
Deputy marshals.—N. O. Hardy, Juneau; George L. Johnson, Douglas; Fred E. Tanner, Skagway; J. W. Combs, Haines; Noah Howell, Petersburg; Thomas Dalgity, Wrangell; Walter B. Sharpe, Ketchikan; J. K. Green, Hyder; J. J. Egan, Tenakee; Henry L. Bahrt, Sitka; Charles H. Passells, Hoonah; J. K. Smith, Craig.
United States attorney.—James A. Smiser, Juneau.
Assistant United States attorneys.—James L. Backstrom, Juneau; John F. Coffey, Ketchikan.
Clerk to United States attorney.—Ina S. Liebhardt, Juneau.
United States commissioners.—Newark L. Burton, Juneau; John Henson, Douglas; James F. Warder, Ketchikan; Joseph J. F. Ward, Skagway; William G. Thomas, Wrangell; Martin S. Perkins, Petersburg; George W. Hinchman, Haines; R. W. De Armond, Sitka; John T. Reed, Hyder; W. D. McLeod, Craig; C. P. Case, Tenakee; W. A. Borland, Hoonah; E. M. Axelson, Yakutat; A. H. Kuettner, Killisnoo; F. A. Hills, Chichagof; Edward Marsden, Metlakatla; U. S. Rush, Kasaan.
Special agent in charge of bureau of investigation.—N. H. Castle.

DIVISION NO. 2.

Judge.—William A. Holzheimer, Nome.
Court stenographer.—O. H. Lamoreux, Nome.
Clerk of court.—Thomas McGann, Nome.
Deputy clerks.—W. C. McGuire, A. C. Dilg, Earl C. Modini, Nome.
United States marshal.—Emmet R. Jordan, Nome.

Chief deputy.—Adrian B. Miller, Nome.

Deputy United States marshals.—Elmer Reed, Charles E. Sandford, Catherine A. Anpher, Nome; T. W. Coady, Fortuna Ledge; James E. Proctor, St. Michael; Eric Johnson, Council; Robert H. Humber, Candle.

United States attorney.—J. M. Clements, Nome.

Clerk to United States attorney.—Richard Clements, Nome.

United States commissioners.—Hugh O'Neill, Nome; D. W. Cram, Barrow; Rodney S. Dimmick, Candle; C. O. Steiner, Council; George L. Stanley, Kiana; George F. Marsh, Marshall; Charles J. Koen, St. Michael; William N. Marx, Teller; Henry Sethmann, Haycock.

DIVISION NO. 3.

Judge.—Fred M. Brown.

Court stenographer.—Isaac Hamburger.

Clerk of court.—Arthur Lang.

Deputy clerks.—C. H. Wilcox, Pauline Lang, A. E. Rucker, Valdez; Leopold David, Anchorage; W. H. Whittlesey, Seward; Thomas S. Scott, Cordova.

United States marshal.—F. R. Brenneman, Valdez.

Chief deputy.—J. H. D. Bouse, Valdez.

Deputy United States marshals.—A. C. Dowling, S. O. Casler, J. A. Roseen, Valdez; C. W. Mossman, Anchorage; William L. Fursman, Cordova; W. J. Feaster, Chitina; Ralph Reed, Seward; Karl Armstrong, Kodiak; Charles McCallum, Unga; Paul Buckley, Unalaska; W. F. Lows, Dillingham; H. C. Kavanaugh, McCarthy; A. F. Hoffman, Matanuska; C. W. Harrington, Seldovia; H. M. Conrad, Latouche.

United States attorney.—William A. Munly, Valdez.

Assistant United States attorneys.—John B. Miller, Valdez; J. L. Truitt, Anchorage.

United States commissioners.—N. E. Bolshanin, Unalaska; William O'Connor, Chitina; C. Parker Smith, McCarthy; R. H. L. Noaks, Cordova; Fred Phillips, Iliamna; Charles C. Naughton, Katalla; Leopold David, Anchorage; Z. T. Halferty, Kodiak; William Nielsen, Naknek; W. H. Whittlesey, Seward; J. F. Major, Talkeetna; F. C. Driffield, Unga; George J. Love, Valdez; Anthony McGettigan, Chisana.

Commissioners with powers of justice of the peace only.—R. D. Chase, Anchorage; H. P. Sullivan, Latouche; Eugene R. Bogart, Seldovia; Capt. B. L. Brockway, United States Coast Guard, cutter *Unalga;* Capt. Walter A. Wiley, United States Coast Guard cutter *Algonquin;* Capt. Frank L. Austin, United States Coast Guard cutter *Bothwell;* Capt. Charles F. Howell, United States Coast Guard cutter *Earp;* A. H. Proctor, St. George Island.

DIVISION NO. 4.

Judge.—Charles E. Bunnell, Fairbanks.

Court stenographer.—E. T. Wolcott, Fairbanks.

Clerk of court.—H. Claude Kelly, Fairbanks.

Chief deputy clerk.—Grace Fisher, Fairbanks.

Deputy clerks.—Harry G. Watson, Richard H. Geoghegan, Fairbanks; William B. Thomas, Flat; Thomas J. De Vane, Ruby.

United States marshal.—L. T. Erwin, Fairbanks.

Chief deputy marshal.—J. H. Miller, Fairbanks.

Deputy marshals.—M. O. Carlson, Emily Townsend, John C. Wood, John J. Buckley, Fairbanks; Peter McMullen, McGrath; E. H. Poppell, Circle; G. G. Geraghty, Flat; C. L. Vawter, Tanana; John B. Powers, Eagle; Thomas H. Long, Ruby; E. D. Heppenstall, Wiseman; J. L. Anders, Hot Springs; C. T. Spencer, Fort Yukon; M. F. Miller, Brooks; James Hagan, Nenana.

United States attorney.—R. F. Roth, Fairbanks.

Assistant United States attorneys.—E. Coke Hill, Ruby; Howard J. Atwell, Fairbanks.

Clerk to United States attorney.—Emma Haggren, Fairbanks.

United States commissioners.—Andrew M. Bainbridge, Livengood; Thomas G. Carter, Beaver City; John J. Donovan, Franklin; J. C. Dehn, Tanana; Thomas J. De Vane, Ruby; Wilbur F. Green, McGrath; A. J. Griffin, Richardson; William E. Garrett, Rampart; Reed W. Heilig, Fairbanks; Preston J. Hilliard, Eagle; John C. Boyle, Circle; George W. Hoffman, Napamute; Howard R. Moore, Flat;

Robert S. McDonald, Nenana; B. B. Smith, Ophir; C. Herbert Wilson, Kantishna; Frank C. White, Fort Yukon; Daniel Webster, Wiseman; Charles M. Browning, Hot Springs.

DEPARTMENT OF COMMERCE.

BUREAU OF FISHERIES.

Agent at large.—Ward T. Bower, Washington, D. C.
Assistant agents at large.—Edward M. Ball, Juneau; Harry J. Christoffers, Seattle; Shirley A. Baker, Dillingham; Henry C. Scudder, Cordova.
Inspector.—Calvin F. Townsend, Fairbanks.
Wardens at large.—Lemuel G. Wingard, Naknek; Fred H. Gray, Wrangell; M. J. O'Connor, Haines; Joseph N. Braun, Ikatan.
Superintendent of the Pribilof Islands.—A. H. Proctor, St. Paul Island.
Agent and caretaker.—Henry D. Aller, St. Paul Island.
Assistant agent.—Herschel Silverstone, St. Paul Island.
Physician.—Dr. H. H. Stromberger, St. Paul Island.
Teachers.—Richard Culbertson, Lois L. Proctor, St. Paul Island.
Assistants.—W. C. Allis, H. C. Peterson, St. Paul Island.
Agent and caretaker.—C. E. Crompton, St. George Island.
Storekeeper.—E. C. Johnston, St. George Island.
Physician.—Dr. W. P. Murphy, St. George Island.
Teacher.—Carl E. Fletcher, St. George Island.
Superintendents of fisheries stations.—Edwin Wentworth, Afognak; C. H. Van Atta, Yes Bay.
Masters fisheries steamers.—Eider, A. H. Mellick, Unalaska; *Osprey*, Edwin Hofstad, Cordova; *Murre*, George Naud, Wrangell; *Auklet*, J. L. Nevill, Wrangell.

STEAMBOAT-INSPECTION SERVICE.

JUNEAU DISTRICT.

Local inspector of hulls.—George H. Whitney, Juneau.
Local inspector of boilers.—William J. Howell, Juneau.
Clerk to local inspectors.—George E. Mann, Juneau.

ST. MICHAEL DISTRICT.

Local inspector of hulls.—Harry W. Ravens.
Local inspector of boilers.—Savine L. Craft.
Clerk to local inspectors.—Wilson W. Brine.

LIGHTHOUSE SERVICE.

SIXTEENTH DISTRICT, KETCHIKAN.

Superintendent.—Walter C. Dibrell.
First assistant superintendent.—Clarence H. Robinson.
Second assistant superintendent.—Charles N. Elliot.
Chief clerk.—Thomas Wood.
Clerks.—A. Mary Mitchell, Marie A. Bishop.
Depot keeper.—Rolf Foosness.
Mechanician.—William J. Wright.
Foreman.—Michael Harris.

TREASURY DEPARTMENT.

INTERNAL REVENUE.

Field deputy.—Charles C. John, Juneau.
Stamp deputy.—George Hutchinson, Fairbanks (office abolished).

PUBLIC HEALTH SERVICE.

Medical officers.—Curtis Welch, Nome; Leonard O. Sloane, Juneau; Joseph A. Silvermann, Valdez; H. C. Story, Ketchikan; T. H. B. Runnals, Skagway; W. W. Council, Cordova.

CUSTOMS SERVICE.

Collector.—John W. Troy, Juneau.
Special deputy collector.—C. D. Garfield, Juneau.
Deputy collectors in charge.—Milson S. Dobbs, Ketchikan; F. E. Bronson, Wrangell; Fred J. Vandewall, Skagway; J. J. Hillard, Eagle; R. W. J. Reed, Nome; N. E. Bolshanin, Unalaska; Edwin R. Stivers, St. Michael; John Elden, Fortymile; George Kennedy, Cordova; John C. Allen, Petersburg; V. V. Walters, Sulzer.
Deputy collectors and inspectors.—M. S. Whittier, Juneau; George M. Simpkins, Juneau; George W. Woodruff, Ketchikan; John L. Abrams, Ketchikan; G. G. Miller, Skagway; S. H. Brown, Nakat.
Inspector.—F. R. Havens, Prince Rupert.

DEPARTMENT OF AGRICULTURE.

BIOLOGICAL SURVEY.

Dr. Seymour Hadwen, in charge investigations of diseases and parasites of reindeer, Unalakleet; Dr. George F. Root, veterinarian assistant in reindeer investigations; L. J. Palmer, in charge reindeer grazing investigations and fur warden; H. W. Johnston, assistant in grazing investigations and fur warden, Unalakleet; O. J. Murie, in charge investigations of caribou herds, with special reference to the development of the reindeer industry, and fur warden, Fairbanks; Donald Stevenson, reservation warden and fur warden, Unalaska; A. M. Bailey, chief fur warden and United States game warden, Juneau; R. C. Steele, fur warden, Seattle, Wash.

EXPERIMENTAL STATIONS.

Agronomist in charge.—C. C. Georgeson, D. Sc., Sitka.
Assistants in charge.—M. D. Snodgrass, B. Sc., Fairbanks; G. W. Gasser, B. Sc., Rampart; F. E. Rader, B. Sc., Matanuska; W. T. White, B. Sc., Kodiak.
Assistant.—B. C. Parker, D. V. M., Kodiak.
Clerk and stenographer.—E. Hansen, Sitka.

WEATHER BUREAU.

Meteorologist in charge.—Melvin B. Summers, Juneau.
Observer.—C. R. Scothorn, Juneau.
Special meteorological observers.—Mrs. Eliza M. Turnbull, Eagle; Clarence L. Lovegren, Nome; Mrs. Margaret T. Georgeson, Sitka; Mrs. Joseph C. Dehn, Tanana; Mrs. Myrtle F. Billings, Valdez.

FOREST SERVICE.

Tongass National Forest.

Forest supervisor.—Charles H. Flory, Ketchikan.
Deputy forest supervisor.—C. T. Gardner.
Clerk and fiscal agent.—Louis King, Ketchikan.
Forest clerk.—Marion E. Carpenter, Ketchikan.
Deputy forest supervisors.—George H. Peterson, Sitka; J. L. MacKechnie, Petersburg.
Forest examiners.—R. A. Zeller, R. L. Cline, Ketchikan.
Forest rangers.—H. E. Smith, Craig; J. P. Williams, Juneau; W. J. Jones, Ketchikan.
Pilot and gas engineer.—Lyle W. Blodgett, Ketchikan.

Chugach National Forest.

Superintendent of Alaskan forests.—Charles H. Flory, Ketchikan.
Forest supervisor.—C. T. Beach, Cordova.
Deputy supervisor.—W. J. McDonald, Cordova.
Forest rangers.—O. A. Strand, Katalla; G. C. Haneman, Seward.
Forest clerk.—L. C. Pratt, Cordova.

BUREAU OF PUBLIC ROADS.

Senior highway engineer.—Chester W. Cheatham, Ketchikan.
Clerk.—Walter Steppe, Ketchikan.

WAR DEPARTMENT.

Board of Alaska Road Commissioners, Juneau.

President.—John G. Steese, colonel, Engineers, United States Army.
Engineer officer.—John C. Gotwals, lieutenant colonel, Engineers, United States Army.
Secretary and disbursing officer.—C. S. Ward, captain, Engineers, United States Army.
Chief clerk and assistant disbursing officer.—Sidney L. Carter.

POST OFFICE DEPARTMENT.

Presidential postmasters.—Everett M. McPhee, Anchorage; Chas. H. Scheffler, Cordova; Thomas H. Deal, Fairbanks; Zina M. Bradford, Juneau; Albert Wile, Ketchikan; R. S. McDonald, Nenana; John J. Walsh, Nome; Any Howell, Petersburg; Wm. E. Root, Seward; Martin Conway, Skagway; Geo. W. Robbins (acting), Valdez; John W. Stedman, Wrangell.
Fourth-class postmasters.—Emelian Petellin, Afognak; Earle M. Forrest, Akiak; Hugh McGlashan, Akutan; H. M. McKanna, Amalga; N. D. Sheppard, Andreafsky; Duke E. Stubbs, Aniak; J. W. Chapman, Anvik; Ethel Linton, Baranof; D. W. Cram, Barrow; H. L. Rowley, Bayview; J. A. McDonald, Berry; John W. Felder, Bethel; Wm. D. English, Bettles; Edith B. Dimmick, Candle; M. R. Boyd, Chatanika; Geo. T. Myers, Chatham; J. L. Freeburn, Chichagof; Chas. Peters, Chickaloon; I. H. Vanhook, Chicken; Ivor Wallin, Chignik; C. A. Simons, Chisana; A. G. Morey, Chitina; T. A. Heckman, Chomley; Thos. Hunter, Circle; Agnes Skof, Cleary; Thos. R. Glass, Copper Center; A. B. Kinne, Council; C. E. Hibbs, Craig; G. H. Birch, Dan Creek; Chas. C. Taggart, Deadwood; Boris Magids, Deering; John Miller, Dempsey; J. C. Love, Dillingham; V. D. Cook, Dolomi; John L. White, Dome; John Henson, Douglas; Mrs. Birgitte Hofstad, Doyhof; Ella M. Wages, Eagle; A. D. S. Myers, Ellamar; Frank M. Kelly, Eska; Helen Grant, Flat; J. T. Allen, Fort Liscum; H. Roy Hunter, Marshall; Fort Yukon; Lizzie J. Woods, White; John Metzger, Fox; John Roberts, Franklin; J. T. Barron, Funter; Irene Brady, Golovin; W. R. Millard, Granite Mine; Elizabeth Griffith, Gulkana; Albert G. Mosier, Gypsum; N. G. Hanson, Haines; P. E. Harris, Hawk Inlet; Frances L. Gunderson, Haycock; Louise R. Gervais, Harris; Philip I. Delon, Holy Cross; Louise Kane, Hoonah; Ferdinand Martin, Hope; Wm. O. Young, Hot Springs; Chas. W. Hawkesworth, Hydaburg; Eldred L. Meyer, Hyder; Dorothy M. Soraci, Iditarod; B. S. Fass, Iliamna; C. F. M. Cole, Jack Wade; E. Kirberger, Kake; C. H. Wilson, Kantishna; Edith J. Nelson, Kasaan; David H. White, Katalla; H. G. Singer, Kenai; Stephen Birch, Kennecott; John Mellin, Kiana; A. H. Kettner, Killisnoo; E. B. Morgan, King Cove; J. P. Lindsay, Klawock; Z. T. Halferty, Kodiak; W. S. Thompson, Kokrines; J. P. Hadley, Kotzebue; Frank S. Barnes, Lake Bay; A. F. Erickson, Latouche; O. P. Gausted, Livengood; Sam Campbell, Long; F. L. Bassett, Loring; Mary M. Cole, McCarthy; Fannie L. Clough, McGrath; L. S. Wickersham, McKinley; H. E. Peckenpaugh, Matanuska; D. F. Eagan, Meehan; James Evans, Metlakatla; J. P. Hannon, Mile Seven; J. F. Kelly, Miller House; Gust W. Johnson, Moose Creek; V. L. Sedgwick, Naknek; F. M. Young, Nation; G. M. Esterly, Nizina; C. E. Danforth, Nolan; Frank Lyons, Nulato; August H. Mittendorff, Nushagak; Peter W. Carlson Ophir; G. O. White, Palmer; H. J. Ahrenstedt, Point Astley; Patrick McDonnell, Poorman; H. J. Sackett, Port Walter; G. A. Stecker, Quinhagak; J. Rahmstorf, Rampart; A. J. Griffin, Richardson; H. A. Clarke, Ruby; C. J. Koen, St. Michael; Effie Jackson, Salchaket; S. A. G. Holmberg, Sanak; A. Grosvold, Sand Point; Mary C. Goddard, Sanitarium; Mae Harrington, Seldovia; S. Pedersen, Shakan; F. M. Sickler, Shungnak; Marie T. Dunklee, Sitka; A. B. Heins, Snettisham; Thos. Shaughnessy, Solomon; E. P. Kennedy, Speel River; J. A. Kemp, Steel Creek; V. J. Dwyer, Strelna; V. V. Walters, Sulzer; H. Van Hoivels, Sundum; H. W. Nagley, Susitna; J. A. A. Moeller, Taku Harbor; T. P. Weatherell, Takeetna; Theodore Diedrick, Tanana;

David W. Johnston, Taylor; Emil J. Gehrmann, Teller; Edward Snyder, Tenakee; Anna M. Stevenson, Thane; Augustus R. Hoare, Tigara; Eugene A. Harries, Tofty; Frank E. Moore, Tokeen; Chris. Petersen, Tokotna; Louise Vachon, Tolovana; Alex. Sutherland, Treadwell; E. J. Demeree, Tyee; Chas. A. Traeger, Unalakleet; Louis Strauss, Unalaska; F. C. Driffield, Unga; C. E. Taylor, Uyak; Eugene Wacker, Wacker; A. Nagozruk, Wales; H. E. Wilmoth, Wasilla; Sylvia S. Yates, Windham; Fred Brentlinger, Woodchopper; E. M. Axelson, Yakutat.

RAILWAY MAIL SERVICE.

Tanana.—E. G. Wetzler, assistant chief clerk.
Cordova.—Alvah Eames, assistant chief clerk.

NAVY DEPARTMENT.

ALASKAN COAL COMMISSION.

Senior member.—Commander Otto C. Dowling, United States Navy, Chickaloon.
Members.—Lieut. Phil J. Weiss, U. S. N. R. F.-3; Lieut. Robert T. Canon, Medical Corps, United States Navy; Lieut. Hugh J. McManus, Supply Corps, United States Navy; Lieut. Richard H. Gifford, Construction Corps, United States Navy, Chickaloon.

DEPARTMENT OF LABOR.

IMMIGRATION SERVICE.

Inspector in charge.—William G. Strench, Ketchikan.
Immigrant inspectors.—Charles W. Durkee, jr., Ketchikan; John C. Bailey, Skagway.

CONGRESSIONAL.

Delegate to Congress.—George B. Grigsby, Washington, D. C.
Secretary to Delegate.—John J. Reagan, Washington, D. C.

TERRITORIAL GOVERNMENT, JUNEAU.

OFFICE OF THE GOVERNOR.

Governor.—Thomas Riggs, jr.
Clerk to the governor.—Louis L. Harding.
Clerk.—Frances Meisenzahl.

OFFICE OF THE SECRETARY.

Ex officio secretary.—Robert J. Sommers.
Chief clerk.—A. W. Fox.
Assistant clerk.—Celia McLaughlin.

OFFICE OF THE TREASURER.

Treasurer.—Walstein G. Smith.
Chief clerk.—Charles E. Harland.

OFFICE OF THE ATTORNEY GENERAL.

Attorney general.—Jerry C. Murphy.
Clerk to attorney general.—Delia B. Chace.

OFFICE OF MINE INSPECTOR.

Mine inspector (ex officio labor commissioner).—B. D. Stewart.

PUBLICITY BUREAU.

Chief.—E. J. White.
Assistant chief.—J. L. Cavanaugh,

OFFICE OF COMMISSIONER OF EDUCATION.

Commissioner of education.—Lester D. Henderson.
Secretary to commissioner.—Marie Drake.

OFFICE OF COMMISSIONER OF HEALTH.

Commissioner of health.—Dr. L. O. Sloane.
Clerk.—Edith Sheelor.

BUREAU OF VITAL STATISTICS.

Registrar.—Robert J. Sommers, Juneau.
Clerk.—Celia McLaughlin, Juneau.

BOARDS AND COMMISSIONS AUTHORIZED BY TERRITORIAL LEGISLATURE.

BOARD OF EDUCATION.

President.—Gov. Thomas Riggs, jr.
Members.—John Sundback, Nome; John Ronan, Seward; J. R. Heckman, Ketchikan; D. A. Sutherland, Juneau.

SHIPPING BOARD.

Chairman.—Gov. Thomas Riggs, jr.
Secretary.—Robert J. Sommers.
Treasurer.—Walstein G. Smith.
General counsel.—J. C. Murphy.
Special counsel.—Maurice D. Leehey.
Traffic adviser.—Richard M. Semmes.

BANKING BOARD.

President.—Gov. Thomas Riggs, jr.
Secretary.—Walstein G. Smith.
Member.—Robert J. Sommers.

BOARD OF TRUSTEES, ALASKA PIONEERS' HOME.

President.—Gov. Thomas Riggs, jr.
Secretary.—Allen Shattuck.
Treasurer.—W. W. Casey.
Superintendent of home.—Harry F. Morton.

DIVISIONAL BOARDS OF ROAD COMMISSIONERS.

Division No. 1.

Commissioner.—Perry Wiley, Juneau.
Assistants.—Thomas Knudson, Martin J. Bugge, Juneau.

Division No. 2.

Commissioner.—Barney Gibney, Nome.
Assistant.—*E. H. Pfaffle.*

Division No. 3.

Commissioner.—James E. Wilson, Valdez.
Assistants.—O. O. Krough, Anchorage; Henry B. Wolking, Cordova.

Division No. 4.

Commissioner.—Robert E. Sheldon, Fairbanks.
Assistants.—Peter Jensen, Ruby; J. E. Barrack, Fairbanks.

BOARD OF FISH COMMISSIONERS.

Chairman.—Gov. Thomas Riggs, jr.
Members.—A. J. Adams, Cordova; John R. Beegle, Ketchikan; Hugh Dougherty, Seward; Charles D. Garfield, Juneau.

BOARD OF REGENTS, AGRICULTURAL COLLEGE AND SCHOOL OF MINES.

L. S. Keller, Skagway; L. F. Shaw, Anchorage; P. J. Rickert, Mrs. Luther C. Hess, A. R. Heilig, H. Claude Kelly, A. J. Nordale, J. A. McIntosh, Fairbanks.

BOARD OF MEDICAL EXAMINERS.

President.—B. L. Myers, Ketchikan.
Secretary-treasurer.—H. C. DeVighne, Juneau.
Members.—L. O. Sloane, Juneau; Curtis Welch, Nome; William Ramsay, Council; J. M. Sloan, J. H. Romig, Seward; Aline B. Beegler, Frank R. Delavergne, Fairbanks.

BOARD OF DENTAL EXAMINERS.

President.—W. E. Zuber, Ketchikan.
Secretary-treasurer.—E. H. Kaser, Juneau.
Members.—J. W. Bayne, Nome; Robert R. Myers, Nenana.

BOARD OF PHARMACY.

President.—W. B. Kirk, Juneau.
Secretary.—D. H. Christoe, Juneau.
Members.—W. H. Caswell, Cordova; C. G. Brinker, Nome; Russell Herman, Valdez; F. W. Dunham, R. T. Kubon, Fairbanks; William Ramsay, Council.

BOARDS OF CHILDREN GUARDIANS.

Division No. 1—Members.—Robert W. Jennings, J. M. Tanner, Mrs. Martha Kashevaroff, Juneau.
Division No. 2—Members.—W. A. Holzheimer, E. R. Jordan, Emma Lee Orr, Nome.
Division No. 3—Members.—Fred M. Brown, F. R. Brenneman, Mrs. T. J. Donohoe, Valdez.
Division No. 4—Members.—Charles E. Bunnell, Lewis T. Erwin, Mrs. H. E. St. George.

BOARD FOR RELIEF OF DESTITUTION.

Superintendent.—Gov. Thomas Riggs, jr., Juneau.
Advisory members.—James A. Smiser, J. M. Tanner, Juneau; G. J. Lomen, E. R. Jordan, Nome; William A. Munly, F. R. Brenneman, Valdez; R. F. Roth, Lewis T. Erwin, Fairbanks.

Appendix C.

TREASURY DEPARTMENT.

UNITED STATES CUSTOMS SERVICE,
OFFICE OF THE COLLECTOR,
Port of Juneau, Alaska, February 2, 1920.

While the record of the commerce of Alaska for 1919 showed a continued dec ine, being the smallest since 1915 in the total value of shipments to and from the United States, the situation disclosed is by no means discouraging and there are features which carry the promise of better coming conditions. The volume of commerce is still very large, perhaps larger per capita than that of any other section of the world. Balance of trade in favor of Alaska was more than $31,000,000—approximately $1,000 for each white man, woman, and child in the Territory—indicating a very healthy commercial and industrial condition.

The figures which tell of the coming and going to and from Alaska show that the preponderance of emigration over immigration, which was the marked feature of conditions in 1917 and 1918, has at last been stopped. The balance was on the side of immigration. The record shows that during the calendar year 24,273 persons came to Alaska while those departing numbered 23,902—a net gain of 371. The record for 1917 was 27,030 arrivals and 31,259 departures, and that for 1918 showed 19,040 arrivals and 27,732 departures—a net loss in two years of nearly 13,000.

The shrinkage in the value of the shipments to the United States for 1919 from the value of those for 1918, approximately fourteen and a half million dollars, was due mostly to the $7,951,000 decrease in copper shipments and the $6,495,000 decline in the canned salmon shipments.

The reduction in the value of the canned salmon shipped from Alaska in 1919 was due wholly to the fact that the run of salmon last year in practically all parts of the Territory was very light and the salmon pack the smallest it had been for five years.

The reduction in the quantity of copper shipped from Alaska in 1919 was due to the collapse of the copper market early in the year, which caused copper producers to curtail the production in Alaska, as elsewhere in the country, for a considerable portion of the year and resulted in much lower prices for the product. The year ended, however, with conditions more satisfactory and shipments approximately up to the 1918 average. The average monthly shipments for the last two months of the year was 6,050,000 pounds, as against a monthly average for 1918 of 6,137,000 pounds. For six months of 1919 the average monthly shipments amounted to 2,411,000 pounds, and in May they reached the low level of 1,134,000 pounds. The quantity of copper shipped during 1919 declined approximately 35 per cent from 1918, and the value of the copper shipped was approximately 44 per cent less than the previous year.

The only really distressing feature of the year's business in Alaska is that indicated by the continuing decrease in the shipment of gold, due, of course, to continued decrease in production. The cause for this is the still prevailing labor shortage and the abnormally high cost of mining gold without corresponding increase in the value of the product. The vast areas of unworked low-grade gold placer fields and great number of only partly developed gold-lode properties, together with new discoveries, suggest that with readjustments in the industrial and economic world completed Alaska's gold output will again begin to increase. Many of the low-grade placer mines, and also lode mines which were operated prior to the war but were compelled to close on account of the shortage of labor, the constantly increasing cost of material and operating expense, and lack of transportation facilities, are still idle, and probably they will remain so until conditions become stable.

One of the most favorable indications of the year was the very satisfactory growth of the herring industry, shown in the marked increase of the shipments of canned herring. The experience of the year would seem to justify the contention of the governor and other authorities that in the course of time the herring industry in Alaska will rival the salmon industry in proportions.

The increase in the importation of furs from British Columbia, Yukon Territory, and Siberia was due largely to the increased activity of the Alaska fur dealers, and partly compensated for the short catch of Alaska furs last year.

The decrease in shipments from the United States to Alaska for 1919 from the record made in 1917 and 1918 is explained by the facts that large enterprises begun before the war had been completed and the materials entering into them delivered, the curtailment of work on the Alaska Railroad, a decrease in the beginning of new enterprises, and a natural decline in building on account of the higher costs.

The principal exports of Alaskan products to foreign countries, not shown in the second table of this report, entitled "Value of Merchandise and Gold and Silver Shipped from Alaska to the United States," are the following copper and other metals exported from southeastern Alaska to British Columbia for treatment, to wit:

	Quantity.	Value.
Ore	1,738½ tons	
Copper content	359,711 pounds	$67,986
Gold	352 ounces	5,886
Silver	3,132 ounces	3,132
Platinum	99 ounces	7,932
Palladium	177 ounces	21,324
Total value		106,360

Also, likewise exported to British Columbia, the following fish products, to wit:

	Pounds.	Value.
Salmon, fresh	1,363,435	$105,409
Halibut, fresh	4,004,733	632,344
Cod, fresh	317,802	11,345
Herring, salt	37,840	7,740
Salmon, canned	2,456,416	426,348
		1,183,186

Commerce of Alaska.

	Calendar years.						
	1913	1914	1915	1916	1917	1918	1919
IMPORTS.							
Merchandise from the United States	$21,689,690	$21,610,860	$23,293,168	$30,834,793	$39,838,168	$40,412,258	$37,476,232
Merchandise from foreign ports	751,173	662,994	500,519	1,544,182	1,196,195	1,175,701	1,449,362
Gold and silver from foreign ports	4,320,985	3,576,090	4,223,620	2,936,018	2,397,237	37,605	31,665
Total imports	26,761,848	25,849,944	28,017,307	35,314,993	44,431,600	41,625,564	38,957,259
EXPORTS.							
Merchandise to the United States	22,252,942	25,427,873	34,245,272	62,507,811	76,651,968	75,026,578	60,473,623
Merchandise and gold and silver to foreign ports	1,248,878	1,047,746	1,225,120	1,873,013	3,093,590	1,315,975	1,578,986
Domestic gold and silver to United States	12,959,266	14,729,905	16,090,411	16,332,117	14,939,440	8,997,655	8,636,139
Foreign gold and silver to United States	4,306,591	3,450,400	3,296,012	3,909,509	2,008,864	83,360	6,332
Total exports	40,767,677	44,655,924	54,856,815	84,622,450	96,693,862	85,423,568	70,695,080
Grand total of imports and exports	67,529,525	70,505,868	82,874,122	119,937,443	141,125,462	127,049,132	109,652,339

Value of merchandise and gold and silver shipped from Alaska to United States.

Articles.	1916		1917	
	Quantity.	Value.	Quantity.	Value.
Antimony ore (tons)	1,408		78	
Antimony ore (pounds)	1,729,177	$178,215	70,862	$8,972
Copper ore (tons)	182,638		199,014	
Copper ore (pounds)	135,289,219	35,534,039	100,740,856	27,243,510
Fish:				
Fresh, except salmon (pounds)	10,355,820	612,707	12,747,266	1,112,602
Dried or cured (do)	5,208,562	185,649	6,524,525	292,805
Pickled (barrels)	18,849	229,562	27,964	295,621
Salmon, canned (pounds)	237,764,309	21,567,123	265,452,307	41,478,514
Salmon, all other (do)	12,972,281	987,695	16,641,213	1,296,224
Herring, canned (do)	860,549	123,066	1,663,580	243,549
Clams, canned (do)	281,232	33,808	1,997,019	261,245
Shrimp (do)	68,340	3,376	83,930	8,232
All other fish		61,635		60,264
Fish fertilizer (tons)	855	29,161	1,196	37,752
Fish and whale oil (gallons)	897,694	349,470	1,015,167	706,674
Total fish products		24,183,252		45,793,452
Fur and fur skins		919,998		379,580
Gypsum (tons)	13,275	55,100	10,950	43,800
Lead ore (tons)	1,768		2,866	
Lead ore (pounds)	1,278,216	78,277	1,595,683	121,946
Lead bullion (do)	18,952	1,485	122,339	9,156
Marble		85,623		72,406
Tin ore (tons)	146		219	
Tin ore (pounds)	189,129	54,147	219,894	114,462
Lumber (feet b. m.)			95,000	3,380
Tungsten ore (pounds)	68,620	54,870	20,160	19,550
Reindeer meat (do)	4,247	627	38,295	6,531
All other Alaska merchandise		46,308		65,621
Gold and silver		16,332,117		14,939,440
United States goods returned		1,527,700		2,233,125
Foreign goods		756,674		536,446
Total		79,808,432		91,591,408

Articles.	1918		1919	
	Quantity.	Value.	Quantity.	Value.
Antimony ore (tons)				
Antimony ore (pounds)		$184		
Copper ore (tons)	155,050		79,925	
Copper ore (pounds)	73,639,093	18,156,051	47,803,188	$10,304,807
Fish:				
Fresh, except salmon (pounds)	10,437,184	1,170,451	7,248,313	796,131
Dried or cured (do)	5,132,889	364,181	4,470,836	215,747
Pickled (barrels)	96,471	1,517,017	66,393	1,079,031
Salmon, canned (pounds)	305,802,850	44,493,418	205,961,820	37,998,478
Salmon, all other (do)	21,372,523	2,285,300	15,824,706	2,171,218
Herring, canned (do)	1,685,826	259,014	4,151,075	825,394
Clams, canned (do)	978,737	142,109	1,304,281	179,801
Shrimp (do)	49,700	12,669	121,710	44,145
All other fish		104,678		154,730
Fish, fertilizer (tons)	1,152	66,760	1,690	96,477
Fish and whale oil (gallons)	1,019,568	804,189	1,543,238	814,719
Total fish products		51,219,786		44,375,871
Fur and fur skins		2,281,782		1,394,437
Gypsum (tons)	1,050	5,250	3,004	12,020
Lead ore (tons)	1,815		1,590	
Lead ore (pounds)	1,013,954	60,256	1,217,910	63,705
Lead bullion (do)	89,988	4,906	87,880	4,210
Marble (tons)	2,992	76,191	3,033	77,961
Tin ore (tons)	179		71	
Tin ore (pounds)	232,933	98,343	52,148	24,715
Lumber (feet b. m.)	1,043,000	99,823	10,000	215
Tungsten ore (pounds)	18,140	11,000		
Reindeer meat (do)	99,174	17,845	36,780	8,000
All other Alaska merchandise		132,688		228,976
Gold and silver		8,997,655		8,636,139
United States goods returned		2,437,393		3,078,822
Foreign goods		385,080		899,884
Total		83,984,233		69,109,762

Merchandise shipped from United States to Alaska.

Judicial divisions.	1913	1914	1915	1916	1917	1918	1919
First	$9,725,472	$11,075,532	$10,329,411	$13,589,867	$14,049,468	$19,958,704	$17,570,534
Second	2,741,588	1,913,936	2,076,745	1,776,400	1,992,533	1,229,083	1,829,325
Third	6,314,946	6,018,269	8,710,344	11,935,320	19,234,642	17,385,299	15,848,998
Fourth	2,907,684	2,603,123	2,176,668	3,533,206	4,561,525	1,831,172	2,227,375
Total	21,689,690	21,610,860	23,293,168	30,834,793	39,838,168	40,412,258	37,476,232

Gold and silver shipped to the United States.

Judicial divisions.	1913	1914	1915	1916	1917	1918	1919
First	$3,586,164	$4,177,069	$5,350,209	$5,638,387	$4,592,716	$3,254,587	$3,784,702
Second	2,239,057	2,602,273	2,736,952	3,035,631	2,573,186	1,172,910	1,425,723
Third	592,008	1,491,248	1,649,453	1,523,206	1,321,381	1,325,901	829,046
Fourth	6,542,037	6,399,315	6,293,797	6,134,893	6,452,157	3,244,257	2,596,668
Total	12,959,266	14,729,905	16,090,411	16,332,117	14,939,440	8,997,655	8,636,139

Merchandise shipped to the United States.

Judicial divisions.	1916	1917	1918	1919
First	$16,586,723	$25,885,753	$27,546,912	$30,837,681
Second	283,626	702,118	1,086,088	2,419,825
Third	45,156,608	49,432,283	46,006,370	26,718,607
Fourth	474,854	631,814	387,208	417,510
Total	62,507,811	76,651,968	75,026,578	60,473,623

These tables show the segregation by judicial divisions of shipments of merchandise from and precious metals and merchandise to the United States.

The following table of passenger movement for six years indicates the travel by regularly established routes to and from the district of Alaska and the Yukon Territory.

The Eagle and Dawson movement shows the local frontier travel, which must not be considered with the general account, as the greater number of these passengers arrived at or departed from Ketchikan or St. Michael, and have been accounted for in their returns.

	1914	1915	1916	1917	1918	1919
Arrivals from the United States and British Columbia:						
Southeastern, southern, and western Alaska	23,822	25,548	27,528	25,749	18,429	23,293
Nome, St. Michael, and Bering Sea	1,491	1,455	1,078	1,281	611	980
Total	25,313	27,003	28,606	27,030	19,040	24,273
Departures to the United States and British Columbia:						
Southeastern, southern, and western Alaska	22,645	19,793	25,426	30,089	26,854	22,620
Nome, St. Michael, and Bering Sea	1,893	1,614	1,433	1,170	878	1,282
Total	24,538	21,407	26,859	31,259	27,732	23,902
Arrivals at Eagle from Dawson, Yukon Territory	785	1,066	1,182	759	387	688
Departures from Eagle to Dawson, Yukon Territory	1,102	873	727	674	1,217	681
Total	1,887	1,939	1,909	1,433	1,604	1,369

Comparative statement of imports and exports for 15 years.

1905	$54,116,582	1913	$67,529,525
1906	63,488,294	1914	70,505,868
1907	48,280,512	1915	82,874,122
1908	53,776,804	1916	119,937,443
1909	58,923,143	1917	141,125,462
1910	55,000,337	1918	127,049,132
1911	57,754,847	1919	109,652,339
1912	72,924,885		

Comparative statement of Alaskan products shipped from Alaska to the United States for 15 years.

1905	$22,065,733	1913	$34,693,590
1906	30,759,159	1914	40,157,778
1907	27,682,263	1915	50,335,683
1908	30,299,788	1916	79,051,758
1909	31,686,112	1917	90,054,962
1910	28,660,279	1918	81,029,008
1911	33,856,264	1919	65,131,056
1912	40,354,178		

The tables following give the value of merchandise shipped to Alaska from the United States for the year 1919, segregated as to place of consignment, with comparative statements for 5 years, and customs transactions for 13 years.

JNO. W. TROY,
Collector of Customs.

Value of merchandise shipped from United States to first division.

Auk Bay	$189,724	Moira Sound	$31,950
Bayview	69,741	Nakat	84,325
Beauclaire	82,491	Noyes Island	12,097
Burnett Inlet	72,689	Petersburg	753,177
Cape Ewards	186,748	Pillar Bay	131,369
Cape Fanshaw	111,751	Point Conclusion	34,380
Chatham	242,652	Point Ward	25,744
Chichagof	94,560	Port Althorp	296,912
Chilkoot	112,701	Port Armstrong	47,289
Chomley	176,392	Port Walter	663,749
Craig	79,851	Pybus Bay	73,901
Douglas	162,095	Quadra	323,930
Dundas	126,017	Red Bluff Bay	30,801
Excursion Inlet	297,437	Roe Point	17,156
Funter Bay	131,859	Rose Inlet	155,974
Gambier Bay	77,781	Saginaw Bay	27,957
George Inlet	25,729	Sitka	359,080
Gull Cove	28,373	Skagway	162,055
Gypsum	7,348	Skowl Arm	26,382
Haines	193,753	Steamboat Bay	18,490
Hawk Inlet	128,501	Taku	284,999
Heceta	106,365	Tee Harbor	123,392
Hidden Inlet	29,648	Tenakee	276,185
Hood Bay	156,699	Thane	336,790
Hoonah	298,323	Todd	111,313
Hydaburg	42,494	Tokeen	12,087
Hyder	30,207	Treadwell	272,111
Juneau	3,138,728	Tyee	77,685
Kake	125,662	Union Bay	24,540
Karheen	88,651	Wards Cove	37,889
Kasaan	200,756	Washington Bay	295,397
Ketchikan	3,842,961	Waterfall	175,979
Killisnoo	76,167	Wrangell	607,843
Klawock	141,165	Yakutat	218,977
Lake Bay	70,947	Yes Bay	134,935
Letnikof	17,343		
Loring	142,320	Total	17,570,534
Metlakatla	197,065		

Comparative statement of principal places in first division.

Name	1915	1916	1917	1918	1919
Douglas	$489,750	$565,181	$350,975	$169,792	$162,095
Haines	214,705	228,607	230,029	209,663	193,753
Juneau and Thane	3,597,231	4,277,634	3,328,741	2,881,938	3,475,518
Ketchikan	1,190,888	1,935,603	2,446,764	3,581,906	3,812,961
Loring	100,682	150,643	89,493	401,100	142,320
Petersburg	242,976	435,992	685,016	987,891	753,177
Sitka	142,376	165,572	224,083	343,811	359,080
Skagway	471,388	423,274	356,950	177,778	162,055
Treadwell	1,002,931	1,332,503	517,783	260,230	272,111
Wrangell	369,446	518,880	640,427	806,056	607,843
All other places	2,507,038	3,556,128	5,179,207	10,138,539	7,599,621
Total	10,329,411	13,589,867	14,049,468	19,958,704	17,570,534

Value of merchandise shipped from United States to second division.

Andreofsky	$41,436	Mountain Village	$6,627
Bethel	268,901	Nome	709,381
Bonanza	1,548	Noorvik	9,317
Candle	29,073	Old Hamilton	13,562
Council	24,349	Pilot Station	5,953
Deering	26,155	Pitkas Point	6,518
Dickson	2,966	Point Barrow	26,959
Golovin	73,797	Point Hope	2,652
Icy Reef	1,947	Solomon	8,333
Keewalik	9,486	St. Michael	242,575
Kiana	2,959	Teller	33,589
Kotlik	7,926	Unalakleet	21,006
Kotzebue	60,617	Wainwright	5,932
Kuskokwim	2,878	Wales	3,736
Kwiguk	75,040	York	5,297
Lost River	65,093		
Marshall	33,717	Total	1,829,325

Comparative statement of principal places in second division.

Name.	1915	1916	1917	1918	1919
Andreofsky	----------	$3,149	$26,960	$127,405	$41,436
Candle	$37,802	20,340	35,724	23,190	29,073
Deering	29,713	22,110	65,837	17,179	26,155
Golovin	69,379	94,520	129,999	111,180	73,797
Marshall	8,153	93,864	110,043	30,770	33,717
Nome	1,110,345	1,049,245	882,495	393,489	709,381
St. Michael	540,245	287,807	447,959	176,004	242,575
Teller	55,269	26,666	55,851	35,960	33,589
All other places	225,839	178,699	238,265	313,906	639,002
Total	2,076,745	1,176,400	1,992,533	1,299,083	1,829,325

Value of merchandise shipped from United States to third division.

Abercrombie	$46,288
Afognak	19,428
Akun Island	64,170
Akutan	243,731
Alitak	251,095
Anchorage	1,186,886
Bristol Bay	1,594,126
Chignik	497,590
Chitina	159,860
Cooks Inlet	146,737
Cordova	2,228,861
Drier Bay	86,327
Egegik	248,675
Ekuk	184,465
Ellamar	25,854
Fidalgo	29,052
Halibut Cove	36,869
Herendeen Bay	32,372
Ikatan	168,379
Karluk	220,042
Katalla	130,826
Kenai	230,616
Kennecott	581,984
King Cove	174,539
Kodiak	310,510
Koggiung	202,979
Kvichak	343,909
Latouche	586,762
Libbyville	303,958
Lockanok	205,686
McCarthy	105,991
Morzhovoi Bay	147,385
Naknek	$840,715
Nellie Juan	36,226
Nelson Lagoon	97,082
Nushagak	979,325
Pavlof	59,943
Pirate Cove	64,592
Point Heiden	12,701
Port Ashton	224,170
Port Graham	74,124
Port Moller	101,346
Prince William Sound	64,922
Quinhagak	32,379
Sand Point	26,065
Saw Mill Bay	41,081
Seldovia	91,883
Seward	1,178,746
Shepards Point	51,716
Shushana	16,220
Snag Point	18,844
Snug Harbor	44,881
Squaw Harbor	57,039
Strelna	21,248
Talkeetna	10,799
Thum Bay	11,242
Unalaska	126,697
Unga	137,484
Uyak	120,255
Valdez	476,996
Wasilla	34,325
Total	15,848,998

Comparative statement of principal places in third division.

Name.	1915	1916	1917	1918	1919
Anchorage	$974,724	$2,609,703	$3,800,693	$1,433,072	$1,186,886
Bristol Bay	1,455,634	777,199	1,117,674	3,240,622	1,594,126
Chignik	185,499	217,260	262,121	496,870	497,590
Chitina	95,267	167,362	184,456	163,856	159,860
Cordova	963,762	1,922,001	2,727,390	2,108,776	2,228,861
Katalla	35,740	88,702	826,827	68,769	130,826
Kennecott	166,657	412,088	754,489	764,581	581,984
Kodiak	92,438	103,067	177,306	223,368	310,510
Latouche	223,220	503,543	878,693	535,430	586,762
Seward	627,257	855,561	1,258,653	1,361,803	1,178,746
Valdez	434,965	538,771	669,642	384,020	476,996
All other places	3,455,181	3,739,063	6,576,698	6,604,132	6,915,851
Total	8,710,344	11,935,320	19,234,642	17,385,299	15,848,998

Value of merchandise shipped from United States to fourth division.

Alatna	$4,613	McGrath	$22,236
Anvik	2,645	Napamute	27,894
Beaver	3,972	Nenana	541,856
Bettles	36,782	Nulato	20,164
Circle	70,579	Ophir	2,723
Dikeman	2,483	Pymute	3,318
Eagle	58,130	Rampart	26,767
Fairbanks	657,656	Ruby	66,489
Flat	25,565	Russian Mission	9,886
Fort Yukon	65,984	Stevens Village	7,874
Holy Cross	60,636	Shageluk	6,793
Hot Springs	24,499	Tacotna	84,300
Iditarod	100,187	Tanana	182,651
Kaltag	4,323	Tolovana	72,694
Kokrines	2,721	Tolstoi	2,770
Koyukuk	13,961	Woodchopper	2,082
Louden	6,260		
Livengood	5,882	Total	2,227,375

Comparative statement of principal places in fourth division.

Name.	1915	1916	1917	1918	1919
Eagle	$36,667	$43,971	$66,491	$33,172	$58,130
Fairbanks	1,103,802	1,544,133	1,524,513	567,187	657,656
Hot Springs	128,084	152,116	131,731	22,503	24,499
Iditarod	219,047	371,784	379,828	127,140	100,187
Nenana	----------	235,313	1,077,284	520,012	541,856
Ruby	209,776	370,469	330,612	73,912	66,489
Tanana	171,806	220,112	218,117	123,378	182,651
All other places	307,486	594,308	832,949	371,868	595,907
Total	2,176,668	3,533,206	4,561,525	1,839,172	2,227,375

Statement of number and tonnage of vessels entered and cleared for the years 1917, 1918, and 1919.

DOMESTIC TRADE.

Port.	1917				1918				1919			
	Entered.		Cleared.		Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Ketchikan	989	479,774	1,201	448,766	1,176	419,600	1,251	395,348	1,028	416,613	1,197	389,469
Wrangell	13	1,778	15	959	8	1,411	3	1,992	3	1,609	3	1,632
Juneau	46	22,160	47	21,389	55	15,682	76	21,726	23	7,790	30	12,214
Skagway	5	6,084	2	1,320	2	2,436	----	----	2	1,910	----	----
St. Michael	7	12,958	6	10,449	3	4,999	2	2,127	5	8,230	2	3,876
Nome	22	35,718	13	20,970	11	18,830	9	13,436	10	17,166	13	21,520
Unalaska	17	9,197	17	9,578	13	7,940	13	5,616	15	8,211	21	12,043
Cordova	27	48,970	61	107,883	37	60,686	61	97,902	6	14,172	24	41,790
Sulzer	25	20,864	20	17,399	12	10,294	15	9,731	4	1,736	5	3,246
Petersburg	----	----	----	----	14	191	11	151	24	441	72	954
Total	1,151	637,503	1,382	638,713	1,331	542,069	1,441	548,029	1,130	477,878	1,367	486,744

Statement of number and tonnage of vessels entered and cleared for the years 1917, 1918, and 1919—Continued.

FOREIGN TRADE.

Port.	1917				1918				1919			
	Entered.		Cleared.		Entered.		Cleared.		Entered.		Cleared.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Ketchikan	767	237,721	409	219,299	698	189,884	383	208,557	767	143,055	424	163,597
Wrangell	31	1,929	30	725	24	240	23	230	22	323	26	325
Juneau	9	3,517	.....	.....	1	1,679	.....	.....	4	3,119	9	1,280
Skagway	1	1,406	19	14,354	2	2,436	.....	.....	2	1,910	.....	.....
Eagle	51	20,859	51	20,368	36	15,183	33	14,675	34	14,864	34	14,719
St. Michael	.....	.....	.....	.....	1	1,481	.....	.....	1	2,112	.....	.....
Nome	15	4,552	13	2,730	18	3,525	14	741	27	3,084	27	3,657
Unalaska	3	1,058	1	329	4	2,425	1	406	3	1,629	4	562
Cordova	2	1,450	.....	.....	1	44	.....	.....	.....	.....	.....	.....
Sulzer	9	5,602	9	6,197	8	5,713	11	4,761	8	3,159	6	1,558
Petersburg	.....	.....	.....	.....	.....	.....	.....	.....	4	46	.....	.....
Total	888	278,094	532	264,002	793	222,610	465	229,370	872	173,301	530	185,798

Recapitulation of customs business, by ports, for the year ended Dec. 31, 1919.

Port.	Vessels entered.		Vessels cleared.		Entries taken.	Vessels documented.	Total vessels entered.	Total vessels cleared.
	Foreign.	Coastwise.	Foreign.	Coastwise.				
Cordova	.....	6	.....	24	.....	14	6	24
Eagle	34	.....	34	.....	93	21	34	34
Forty Mile	.....	.....	.....	.....	12	.....	.....	.....
Juneau	4	23	9	30	78	239	27	39
Ketchikan	767	1,028	424	1,197	196	254	1,795	1,621
Nome	27	10	27	13	31	79	37	40
Petersburg	4	34	.....	72	.....	17	38	72
St. Michael	1	5	.....	2	.....	.....	6	2
Skagway	2	2	.....	.....	562	1	4	.....
Sulzer	8	4	6	5	3	13	12	11
Unalaska	3	15	4	21	3	14	18	25
Wrangell	22	3	26	3	185	52	25	29
Total	872	1,130	530	1,367	1,163	704	2,002	1,897

Comparative statement of customs business for the district, 1907–1919.

Years.	Vessels entered.		Vessels cleared.		Entries taken.	Vessels documented.	Total vessels entered.	Total vessels cleared.
	Foreign.	Coastwise.	Foreign.	Coastwise.				
1907	341	445	303	426	1,636	378	796	729
1908	280	410	197	406	1,113	152	690	603
1909	318	418	262	414	1,104	176	736	676
1910	393	451	366	419	1,190	190	844	785
1911	367	514	331	495	1,200	276	681	826
1912	318	770	282	643	1,292	349	1,088	925
1913	365	812	327	770	1,318	580	1,177	1,090
1914	378	805	349	810	1,089	576	1,183	1,159
1915	602	792	585	817	1,129	587	1,394	1,402
1916	866	1,051	539	1,290	1,669	581	1,917	1,829
1917	888	1,151	532	1,382	1,389	643	2,039	1,914
1918	793	1,331	465	1,441	1,168	610	2,124	1,906
1919	872	1,130	530	1,367	1,163	704	2,002	1,897

Appendix D.

Newspapers in Alaska.

Anchorage:
- Anchorage Times (daily and weekly).
- Alaska Railroad Record (weekly).
- Alaska Democrat (weekly).

Chitina:
- The Chitina Leader (weekly).

Cordova:
- The Cordova Times (daily).

Douglas:
- The Douglas Island News (weekly).

Fairbanks:
- Alaska Citizen (daily).
- The Fairbanks News-Miner (daily).

Hyder:
- Hyder Alaska Miner (weekly).

Juneau:
- The Alaska Daily Empire.
- The Alaska Daily Capital.

Ketchikan:
- The Ketchikan Alaska Chronicle (daily).
- The Journal (weekly).
- Times (daily).

McCarthy:
- The McCarthy News (weekly).

Nenana:
- The Nenana News (daily).

Nome:
- The Nome Nugget (weekly).
- Eskimo (monthly).

Petersburg:
- The Report (weekly).

Seward:
- The Seward Gateway (daily).
- The Alaska Post (weekly).

Skagway:
- Daily Alaskan.

Valdez:
- Valdez Miner (weekly).
- The Pathfinder (monthly).

Wrangell:
- The Wrangell Sentinel (weekly).

Appendix E.

Commercial Bodies in Alaska.

Anchorage Chamber of Commerce	Anchorage.
Brooks Commercial Club	Brooks.
Cordova Commercial Club	Cordova.
Fairbanks Commercial Club	Fairbanks.
Haines Chamber of Commerce	Haines.
Juneau Commercial Association	Juneau.
Ketchikan Chamber of Commerce	Ketchikan.
McCarthy Commercial Club	McCarthy.
McGrath Commercial Club	McGrath.
Nenana Commercial Club	Nenana.
Northwestern Chamber of Commerce	Nome.
Petersburg Commercial Club	Petersburg.
Seward Commercial Club	Seward.
Skagway Commercial Club	Skagway.
Talkeetna Commercial Club	Talkeetna.
Valdez Commercial Club	Valdez.
Wrangell Commercial Club	Wrangell.

Appendix F.

Post Offices in Alaska.

[Eighth zone rate applies to all offices.]

The figures 1, 2, 3, or 4, after name of office, indicates the judicial division in which the office is located; the numbers following indicate parallel and meridian, respectively, leading to the approximate location of office.

R indicates mail restricted during winter months.

No.	Post office.	Unit zone.	No.	Post office.	Unit zone.
05501	Afognak *	3 58–153	05556	Iliamna	3 60–154
05686	Akutan	3 54–166	05558	Jack Wade, R	4 64–141
05503	Amalga	1 59–135	05559	Juneau *o x*	1 58–134
05687	Anchorage *o x*	3 61–150	05694	No. 1 (station).	
05680	Andreafsky, R	2 62–163	05560	Kake *	1 57–134
05684	Aniak, R	4 62–160	05564	Kantishna, R	4 64–151
05504	Anvik, R	4 63–160	05562	Kasaan	1 56–132
05505	Baranoff	1 57–135	05563	Katalla *x*	3 60–145
05506	Barrow, R	2 71–157	05565	Kenai	3 61–151
05698	Bayview *	1 55–133	05566	Kennecott *o* *	3 61–143
05508	Berry, R	4 65–148	05567	Ketchikan *o x*	1 55–132
05509	Bethel, R *	2 61–162	05697	Kiana, R	2 67–160
05510	Bettles, R	4 67–152	05568	Killisnoo	1 57–135
05512	Candle, R *	2 66–162	05676	King Cove	3 55–162
05667	Chatanika, R *	4 65–147	05569	Klawock *	1 55–133
05515	Chatham	1 57–135	05571	Kodiak *	3 58–152
05641	Chicagof *	1 58–136	05572	Kokrines, R	4 65–155
05514	Chickaloon	3 62–148	05575	Kotzebue, R *	2 67–162
05517	Chicken, R	4 64–142	05648	Lake Bay	1 56–133
05518	Chignik *	3 56–158	05577	Latouche *	3 60–148
05675	Chisana, R	3 62–142	05690	Livengood, R *x*	4 66–148
05639	Chitina *	3 62–144	05681	Long, R	4 64–156
05519	Chomly *	1 55–132	05578	Loring	1 56–132
05520	Circle, R *x*	4 66–144	05665	McCarthy *	3 61–143
05521	Cleary, R *	4 65–147	05673	McGrath, R	4 63–155
05524	Copper Center, R *	3 62–145	05688	McKinley, R	3 63–147
05525	Cordova *o x*	3 60–146	05685	Matanuska *	3 62–149
05526	Council, R *	2 65–164	05579	Meehan, R	4 65–147
05661	Craig *	1 55–133	05580	Metlakatla *	1 55–132
05647	Dan Creek, R	3 61–143	05581	Mile Seven *	3 60–146
05528	Deadwood, R *	4 66–145	05582	Miller House, R	4 65–145
05529	Deering, R	2 66–163	05583	Moose Creek	3 62–149
05530	Dempsey, R	3 63–145	05654	Naknek, R	3 59–157
05645	Dillingham, R	3 59–158	05585	Nation, R	4 65–142
05531	Dolomi	1 55–132	05586	Nenana, R *x*	4 65–149
05532	Dome, R	4 65–147	05587	Nizina, R	3 61–143
05533	Douglas *o x*	1 58–134	05583	Nolan, R	4 67–150
05527	Doyhof	1 57–133	05500	Nome, R *x*	2 65–165
05534	Eagle, R *x*	4 65–141	05589	Nuiato, R *	4 65–158
05536	Ellamar *	3 61–147	05590	Nushagak, R	3 59–158
05535	Eska	3 62–149	05591	Ophir, R *	4 63–156
05600	Fairbanks, R *o x*	4 65–148	05592	Palmer	3 62–149
05677	Flat, R *	4 63–158	05593	Petersburg *o x*	1 57–133
05540	Fort Liscum *x*	3 61–146	05616	Point Astley	1 58–134
05693	Fortuna Ledge, R *	2 62–162	05692	Poorman, R	4 64–156
05541	Fort Yukon, R *	4 67–145	05700	Port Walter *	1 56–135
05542	Fox, R	4 65–147	05596	Quinhagak, R	3 60–162
05543	Franklin, R *	4 64–142	05597	Rampart, R *	4 65–150
05544	Funter	1 58–135	05598	Richardson, R	4 64–146
05546	Golovin, R *	2 65–163	05651	Ruby, R *x*	4 65–155
05691	Granite Mine	3 61–148	05599	St. Michael, R *x*	2 63–162
05547	Gulkana, R	3 62–146	05601	Salchaket, R	4 64–147
05548	Gypsum	1 58–135	05602	Sanak	3 54–163
05549	Haines *x*	1 59–135	05603	Sand Point *x*	3 55–161
05669	Hawk Inlet	1 58–135	05604	Sanitarium	1 57–135
05695	Haycock, R *	2 65–161	05605	Seldovia *	3 59–152
05573	Holy Cross, R *x*	4 62–160	05606	Seward *o x*	3 60–149
05550	Hollis	1 55–133	05607	Shakan *	1 56–133
05552	Hoonah *	1 58–135	05609	Shungnak, R	2 67–157
05553	Hope, R *	3 61–150	05610	Sitka *x*	1 57–135
05554	Hot Springs, R *	4 65–151	05611	Skagway *o x*	1 59–135
05662	Hydaburg *	1 55–133	05612	Snettisham	1 58–134
05689	Hyder *	1 56–130	05613	Solomon, R *	2 65–164
05640	Iditarod, R *x*	4 63–158	05614	Steel Creek, R	4 64–141

* Money-order offices. *x* International money-order offices. *o* Postal savings depositories.

Post offices in Alaska—Continued.

No.	Post office.	Unit zone.	No.	Post office.	Unit zone.
05657	Strelna	3	61–144	05625 Tolovana, R	4	65–150
05615	Sulzer *x*	1	55–133	05627 Treadwell *o x*	1	58–134
05709	Sumdum	1	58–134	05628 Tyee	1	57–135
05618	Susitna, R *	3	62–150	05629 Unalakleet, R *	2	64–161
05642	Talkeetna	3	62–150	05630 Unalaska *	3	54–167
05653	Taku Harbor	1	58–134	05631 Unga *x*	3	55–161
05619	Tanana, R *	4	65–152	05632 Uyak *	3	58–154
05620	Taylor, R	2	66–165	05633 Valdez *o x*	3	61–146
05621	Teller, R *	2	65–166	05696 Wainwright, R	2	71–160
05622	Tenakee *	1	58–135	05634 Wales, R	2	66–168
05678	Thane *o x*	1	58–134	05635 Wasilla *	3	62–149
05643	Tigara, R	2	68–167	05636 Windham	1	58–133
05623	Tofty, R *	4	65–151	05715 Woodchopper, R	4	65–143
05624	Tokeen *	1	56–134	05637 Wrangell *o x*	1	56–132
05083	Tokotna, R	4	63–156	05638 Yakutat *	1	60–140

* Money-order offices. *x* International money-order offices. *o* Postal savings depositories.

Appendix G.

Foreign consuls in Alaska.

Name.	Residence.	District.
Norway:		
William Britt	Juneau	Southern part of Alaska.
Gubrand J. Lomen	Nome	Northern part of Alaska.
Russia:		
Nikolai Bogoyavlensky	do	All of Alaska.
Sweden:		
Eric William Carleton	do	Do.

Appendix H.

Report of Alaska Advisory Committee, Appointed by Hon. John Barton Payne, Secretary of the Interior, April 22, 1920, Submitted June 11, 1920.

REPORT OF ALASKA ADVISORY COMMITTEE.

INTRODUCTION.

The Alaska advisory committee, made up of representatives of the Interior, Post Office, and Agricultural Departments, was appointed by and at the request of Hon. John Barton Payne, Secretary of the Interior; its purpose being to advise the Secretary of the Interior as to what immediate steps can be taken to better conditions in Alaska, what industries can be developed, and resources exploited to give employment to a resident population which, in turn, will give a home market for Alaska products.

The committee has examined a large mass of data bearing upon Alaska in the files of the various Government departments, including the records and hearings of several previous Alaska investigations. Informal conferences were also held in Seattle with many persons interested in the development of Alaska, including mining, canning, timber, transportation, and commercial interests, as well as representatives of the Alaskan Engineering Commission and of other Government departments. About a month was devoted to the inquiry, and the report and recommendations of the committee follow, the arrangement being (1) a summary of most important recommendations, (2) brief statements of the industrial conditions in Alaska, and (3) detailed recommendations arranged by topics.

PRINCIPAL RECOMMENDATIONS.

The canvass of the Alaska situation leads the committee to make many recommendations for the improvement of industrial conditions within the Terri-

tory, and these are fully set forth in later sections of this report. The most important and urgent of these recommendations are briefly stated as follows:

1. Lowering of ocean freight and passenger rates and improvement of transportation and mail service through economies introduced by combination of two existing steamship lines into one.

2. Concentration and coordination of Federal control of Alaska lands and resources by obtaining legislative authority for an Alaska development board, and, pending this, by the appointment of an interdepartmental Alaska committee.

3. Coordination of Federal road construction and the development of a plan for a comprehensive system of roads and trails to serve the entire Territory. Also the requesting of an appropriation of at least $1,000,000 for the inauguration of this system.

4. Investigation of the commercial feasibility of smelting Alaska copper ores within the Territory.

5. The immediate development of an Alaska pulp-wood industry and additional surveys of timber and water power, looking to the largest possible development of this industry.

INDUSTRIAL CONDITIONS AND RESOURCES.

POPULATION.

The white population of Alaska, 39,000 in 1910, increased by 1915 to about 50,000. From 1915 to 1918, owing to war conditions, the population declined, but in 1919 the tide set northward again and there was a slight increase, which will probably continue in 1920. The present white population of the Territory is estimated to be 36,000, in addition to about 25,000 natives, some of whom are civilized. The industrial population of the Territory exceeds 40,000. The loss in population during the period of the war was due to (1) men entering the military service, estimated to number 3,000, (2) high wages in the States, (3) the decrease in number of men employed in mining. In 1915 about 9,600 men were employed in the Alaska mining industry as compared with about 4,500 in 1919.

The committee believes that under present industrial conditions it is undesirable to make special effort to attract men without capital to Alaska. It would be a mistake to draw to Alaska a greater number of men than can be absorbed by the existing industrial development. What Alaska needs is the development of industries to give employment to labor, and thus to attract a population that in turn will give a market for local products.

INDUSTRIES AND COMMERCE.

Alaska's basal industries are and always will be mining and fishing, but the Territory includes large resources in pulp wood, some timber suitable for export, extensive reindeer pastures, and lesser areas suitable for stock raising. There are large areas of arable lands in the Territory, but these will be used principally to supply the local population attracted by other industries.

The total value of Alaska's mineral, fish, and fur products, etc. (1867–1919), is $949,000,000. Alaska's most prosperous year was 1916, when the value of her total products was $89,350,000. The value of all Alaska products in 1919 was about $71,000,000.

Value merchandise imported into Alaska.

Year.	From United States.	From foreign countries.
1914	$21,610,000	$663,000
1915	23,293,000	501,000
1916	30,835,000	1,544,000
1917	39,836,000	1,196,000
1918	40,412,000	1,175,000
1919	37,476,000	1,449,000

In 1919, 25 American vessels (net tonnage, 32,444) and 5 Canadian vessels (net tonnage, 4,870) were operated as common carriers to Alaska ports. These carried 295,490 tons of freight and 32,803 passengers northbound and 278,199

tons of freight and 31,717 passengers southbound. A total of 370 private vessels (over 20 tons) were operated in the Alaska service during 1919, having an aggregate net tonnage of 118,169. Mr. Robert Semmes estimates that these private vessels carried a total of 465,000 tons of freight (north and south bound).

Nine river steamers were operated on the Alaska Yukon and its tributaries in the summer of 1919. These carried a total of 9,691 tons of freight, of which 1,906 tons was for the Alaskan Engineering Commission. Besides the local passengers, of which no record is available, a total of 1,369 in and out bound passengers were carried by the steamers. One steamer was operated on the Kuskokwim River during the summer of 1919 and carried a total of about 800 tons of freight.

MINING.

Alaska mines have produced minerals to the total value of $438,000,000, of which $311,000,000 is the value of the gold output. In 1914, $19,066,000 worth of minerals were produced; in 1919, $19,700,000. During the war there was an abnormally large output of copper, which in 1916 brought the value of the total mineral output up to $48,637,000.

Alaska gold mining, like that of the rest of the world, has been curtailed because of economic conditions imposed by the war. As a consequence, the value of the Alaska gold output has steadily declined from $17,242,000 in 1916 to about $9,550,000 in 1919. Gold mining has long been the principal Alaska industry, for though it has employed far less men than the fisheries, yet the prospectors and miners, unlike the fishermen, were all permanent residents of the Territory. In the past over 60 per cent of the population has been directly or indirectly employed by the gold-mining industry. Therefore the decline in gold mining has been the principal cause of Alaska's loss of population and the discouragement of her residents. In 1916, 4,000 men were engaged in placer mining; in 1919 only 2,000. A revival of gold mining would undoubtedly greatly increase the prosperity of the Territory.

The total placer gold produced in Alaska has a value of $218,000,000. Much of this has been won from the rich bonanza deposits, whose exploitation requires little capital. It is not impossible that other rich placers will be found, but the only certain reserves of placer gold are in the extensive deposits of auriferous gravels containing comparatively small gold values. These must be exploited by mechanical methods involving large investments. Including in the reserves only the auriferous gravels of which some test has been made and which are believed to carry enough gold to warrant exploitation under prewar economic conditions, the Geological Survey estimates that the Alaska placer-gold reserves have a value of between $240,000,000 and $360,000,000.

Alaska gold-lode mining in the past has been chiefly based on large low-grade deposits of the Juneau district, whose profitable exploitation has been possible only by very large operations. The enormously increased cost of mining, owing to the present economic conditions, has greatly curtailed mining at Juneau.

The most promising present field for Alaska gold-lode mining is in the exploitation on a small scale of the auriferous lodes of higher gold tenor which have been found in many localities, notably in the Willow Creek and Fairbanks districts. Geologic information indicates a wide distribution of auriferous deposits, and there is every reason to believe that other workable deposits of gold-bearing quartz will be developed when the country is opened up by railroads and wagon roads.

Alaska copper mines, first operated in 1901, have produced a total of 545,000,000 pounds of copper, valued at $114,526,000. Stimulated by the war price of copper, the Alaska mines made their maximum output in 1916, amounting to 119,855,000 pounds of copper, valued at $29,484,000. Owing to the fall in price of metal and to uncertainty of market, the Alaska copper production fell in 1919 to 47,220,000 pounds, valued at $8,783,000.

Copper deposits are widely distributed in Alaska, and there is every reason to believe that their exploitation will increase under better transportation conditions. Much the larger part of the present copper output has come from the high-grade ores of the Chitina district. Larger bodies of low-grade ore have been found in several districts, notably on Prince William Sound, and the exploitation of these should give a greater stability to the Alaska copper-mining industry.

Owing to the withdrawal of all Alaska coal lands from entry in 1906, there was no development of the coal fields until the leasing law went into effect in

1914. Since then some advances have been made, but operations have been hampered by economic conditions imposed by the war and by certain restrictions in the leasing law. As a consequence, Alaska has produced in all only 253,000 tons of coal, and her output in 1919 was only 60,000 tons. Meanwhile, she is importing annually about 100,000 tons of coal from Washington and British Columbia.

Much the larger part of the coal reserves of Alaska are lignitic, which, under present methods of utilization, are not available for export. The Bering River and Matanuska fields contain, however, very high-grade bituminous coals of a better grade than any found on the Pacific seaboard, as well as some anthracite. These coals are for the most part closely folded and much broken, making them expensive to mine and rendering them in part unavailable for present profitable exploitation. There are, however, in both fields high-grade coals that can be mined and these will find an export market. Until these fields have been more thoroughly prospected by underground exploration it is impossible to predict how large an annual tonnage can be produced from them.

The Alaska oil lands were withdrawn from entry in 1910, and thereby practically all petroleum development was stopped until the passage of the leasing law in 1920. In spite of this handicap, 53,000 barrels of petroleum have been produced in the Katalla field. Meanwhile Alaska is drawing on California annually for nearly 500,000 barrels of petroleum and petroleum products. This does not include the oil consumed by steamers running to Alaska ports. The information afforded by seepages indicates that there are five oil fields in Alaska which could probably be made productive. So far as known, the Alaska petroleum is a high-grade refining oil, for which there is at present a great need. Therefore the development of the Alaska petroleum fields is not only of great importance to the Territory but also to the entire Nation.

Incidental to gold and copper mining, considerable silver and some lead have been produced from Alaska ores. Galena ores, some of which carry a high percentage of silver, are widely distributed in Alaska and are now receiving considerable attention. Both placer and lode tin have been found in the York district of Seward Peninsula. Placer tin has also been found in some of the Yukon camps. So far as known, there are no large reserves of placer tin in Alaska. The outlook for lode tin mining in the York district is rather hopeful.

Platinum and related metals are being mined in Alaska. During the war Alaska produced antimony, chromite, and tungsten. The known reserves of these metals are considerable. Quicksilver mining has been carried on in a small way for many years in the Kuskokwim region and will no doubt continue. Molybdenite and bismuth ores are rather widely distributed in Alaska, and nickel ores have been found in the Territory.

There are large deposits of marble in southeastern Alaska, and marble quarrying is increasing. Gypsum has long been mined in the Sitka district. Sulphur deposits occur in the Aleutian Islands and are now being developed. There is considerable graphite in Seward Peninsula, and some of this mineral has been produced.

FISHERIES.

The total value of the Alaska fishery products up to the close of 1919 is $418,042,000. Measured from the standpoint of value of annual product and men employed, the fishing industry is the most important of the Territory. It was especially prosperous during the war, the value of its total output increasing from $15,739,068 in 1913 to $59,144,859 in 1918. The number of employees rose from 24,263 in 1913 to 31,213 in 1918. Much the larger part of this output is canned salmon, the value of the cannery output in 1913 being $13,531,604 and $51,041,949 in 1918. Of the total employees in the fishing industry, 16,513 were employed in the salmon canneries in 1913 and 26,502 in 1918. The canneries are operated for only a few months in the year, and much the larger part of the labor is imported. The total investment in the Alaska salmon-canning industry increased from $31,341,670 in 1913 (79 canneries) to $63,901,397 in 1918 (135 canneries).

Though the size and value of the Alaska salmon catch overshadows all the rest of the fishing industry, yet notable increases were made during the years 1913 to 1918 in the halibut, cod, herring, and other Alaska fisheries.

The Alaska salmon catch has probably reached its maximum and any effort to a more intensive development of these fisheries would lead to their rapid depletion. Given proper safeguards against overfishing, the salmon fishing industry of Alaska can be made to yield a large and continuous annual return.

Without drastic protection the Alaska halibut fisheries and of the adjacent seas will soon be depleted. As many of the halibut banks lie without the 3-league limit, their protection is only possible by international agreement. The herring and cod fisheries of A aska are enormous, and the present annual yield is but a fraction of the fish that could be produced. There are many other varieties of fish in Alaska waters which will eventually be developed as part of the commercial fisheries.

FARMING AND STOCK RAISING.

Alaska contains extensive areas of farm lands suitable for raising the hardier grains, including wheat, potatoes, forage crops, and many varieties of vegetables. Tests have shown that sugar beets can be matured in the Tanana and Susitna Valleys, and that these contain a high percentage of sugar. The most promising agricultural fields are in the Tanana and in the Susitna Valleys, both tributary to the Government railroad. Extensive areas of agricultural lands are also found in other parts of the Yukon Basin and in lesser amounts in some of the Pacific coastal regions.

The best developed farming region is that tributary to Fairbanks. In this region there are 102 homesteads, with about 2,000 acres of land under cultivation, and with an agricultural population of about 250. These farms produced in 1919, 60 tons of wheat, 40 tons of oats, 10 tons of barley, 500 tons of hay, 325 tons of potatoes, 60 tons of vegetables, and 150 hogs. The success during the last five years in the raising of wheat has so encouraged the farmers and local business men that they are now building a small flour mill at Fairbanks. There is a little dairying at Fairbanks, and in other parts of the Territory, but the raising of cattle has not yet been greatly developed in connection with other farming.

There are good grazing lands in the interior, but the period of winter feeding is about eight months. In the coastal region of southwestern Alaska the season of pasture is much longer. Cattle were introduced on Kodiak and other islands by the Russians and have been raised ever since. It is probable that there are cattle ranges in southwestern Alaska where beef and mutton could be raised for export.

TIMBER RESOURCES.

The best timber in Alaska, chiefly composed of Sitka spruce and hemlock, is in the Tongass National Forest, in southeastern Alaska, and in the Chugach National Forest, in the Prince William Sound region. These two forests embrace 20,000,000 acres, approximately 5 per cent of the total area of Alaska. Between these two forests lie about 2,000,000 acres of timber of similar character. In the interior there is approximately between fifty and seventy-five million acres of spruce, birch, and cottonwood. This is chiefly valuable for local use.

The national forests are estimated by the Forest Service to include 77,000 000,000 feet (b. m.) of timber suitable for lumber and pulp. The annual production of timber is relatively small, but the proportion of timber cut from the national forests, as compared with lumber imported, is steadily increasing. In 1906 the lumber shipped into Alaska composed 86 per cent, as compared with 14 per cent cut from national forests. In 1919 the proportion was exactly reversed, 86 per cent being produced locally and 14 per cent imported, chiefly Douglas fir for heavy construction purposes. Alaska Sitka spruce is now being exported as far as the Atlantic coast for specialized use, and the birch will also in all probability find an export market.

REINDEER.

Between 1892 and 1902 the Government imported 1,280 reindeer into Alaska for the use of the Alaska natives. The natural increase from the original stock has resulted in a herd numbering nearly 200,000, besides which about 100 000 have been killed for food and skins. Of these, about 69 per cent belong to the natives, 5 per cent to the missions, 23 per cent to the Laplanders and other whites, and 3 per cent are still in Government ownership.

There is a company at Nome which engages in raising reindeer for the market. Their herd now includes nearly 20,000 animals, and they have three cold-storage plants in operation and two more in construction. Shipments of reindeer meat are limited to cold-storage capacity of steamers running to Nome, and were 99,000 pounds in 1918 and 37,000 pounds in 1919.

U. S. Fish & Wildlife Service

There are extensive reindeer pastures in inland Alaska and on the shores of Bering Sea and the Arctic Ocean. It is estimated that these pastures should support a total of 9,000,000 to 10,000,000 animals. The reindeer range tributary to Broad Pass, and hence to the Alaska Railroad, should be capable of supporting 600,000 animals. This, if utilized, will give tonnage to the railroad and would furnish a new source of meat and leather from a region which has no value for other purposes.

FURS.

Since 1867 Alaska has produced furs to the value of about $90,400,000, of which about $53,000,000 represents the value of the sealskins. The value of the Alaska furs has increased from $761,729 in 1913 to $2,288,170 in 1918. Of these amounts $66,095 in 1913 and $924,570 in 1918 represent the value of the fur seals killed by the Government on Pribilof Islands.

The raising of foxes and other fur-bearing animals is on the increase in Alaska and promises to become a more important industry. The evidence in hand indicates that Alaska will continue to yield a valuable annual fur product. The fur seals promise to be a large source of annual revenue to the Government.

FINDINGS AND RECOMMENDATIONS.

WATER TRANSPORTATION.

Alaska is served by three ocean transportation systems, the Alaska Steamship Co. and Pacific Steamship Co. being American lines, and the Canadian Pacific being a Canadian company. The Alaska Steamship Co. serves all main sections of the Territory, the Pacific Steamship Co. all sections excepting the Bering Sea or Nome route, and the Canadian Pacific Co. only southeastern Alaska or inside passage ports.

The freight and passenger rates of the American companies show a general increase since 1914. Whether these rate increases have been justified was not inquired into by the committee, as such inquiry, necessitating an expert examination of the company's operating costs and property valuations, could not be undertaken in the brief time allowed for the committee's investigations. The committee therefore attempted only to ascertain whether the Territory could develop under existing rates.

It was the opinion of practically every person appearing before the committee that money could not be attracted to Alaska, industries dependent upon transportation by regular lines started, or general development go forward freely under existing rates, and this was the conclusion reached by the committee. Having reached this conclusion, the committee sought to determine the elements in the transportation situation controlling efficiency and cost of service, to ascertain whether an equal or better service might be secured at a lower cost, and, if so, whether freight rates might not be reduced accordingly.

The following were the outstanding transportation elements thus developed:

1. No material benefits now accrue from maintaining two American lines. There is no competition.

2. The Alaska freight and passenger traffic load has two high peaks, spring and fall, requiring an excess equipment in order to insure sufficient elasticity to meet them.

3. The total freight carried yearly by the American lines is approximately half the total cargo space, revealing the extent of the economic loss occasioned by the traffic peaks.

4. The service is at times very irregular, due to the nature of the traffic handled and lack of coordination of sailings between the two companies.

5. Regular and the best possible service to all districts of Alaska can not be given by existing companies under their present methods and burdens of operation.

6. The Post Office Department is not functioning and can not function to meet the needs of Alaska under the existing organization of transportation facilities.

7. The combined control of land and water transportation facilities precludes the most efficient surpervision and regulation of either, and the further alliance with mining and smelting interests produces a psychological situation injurious to Alaskan development and consequently to traffic expansion.

8. Canadian competition to southeastern Alaska is a serious factor in the development of an adequate American service. Southeastern Alaska traffic

should help support the entire Alaska transportation system. The portion of that traffic going to the Canadian line cripples to that extent a comprehensive transportation scheme for the entire Territory.

The committee is unanimous in the conclusion that the two independent steamship lines as at present organized can not solve the transportation problem of Alaska. It therefore recommends:

1. That an effort be made to consolidate, under proper safeguards, existing American lines into, or substitute therefor, one purely ocean transportation company as the quickest and surest method to reduce existing ocean freight rates and to meet other transportation necessities.

2. That the Shipping Board be requested to at once begin an inquiry into all elements entering into the reasonableness of present ocean freight rates, to the end that the committee's first recommendation failing, some measure of relief may, if possible, be secured by an equitable reduction in rates.

3. That in case it should develop that the shipping bill recently passed does not adequately protect American coastwise lines from Canadian competitors, such protection be secured by further legislation.

4. That the Post Office Department be requested to assist in every manner permitted by existing law or by additional legislation in providing an adequate transportation service for Alaska, which shall permit of the reasonable development of that Territory.

5. That if one line be substituted for the two existing American lines the vessel routes and sailings be entirely rearranged by and with the cooperation of the Shipping Board and Post Office Department, to the end that all sections of Alaska may receive reasonable transportation and mail service.

6. That in case a substitution of one line for the two existing American lines be accomplished the Shipping Board allocate vessels for limited periods to the residual line to enable it to meet the peak traffic loads and to preclude the maintenance throughout the year of an excess tonnage.

7. That in case the substitution of one line be made, as above outlined, strict supervision of all rates and rate increases shall at all times be maintained by the United States Shipping Board, that all benefits from such consolidation shall at all times be secured to the people of Alaska through reduced freight rates and the maintenance of reasonable service.

8. That pending the establishment of an improved service, the cannery and other private fishing vessels operating to ports off the main routes of travel be authorized and encouraged to carry passengers and freight for the public to such ports not regularly served by common carrier; also that upon the establishment of a common carrier service to any port the authority of the cannery vessels to carry pasengers or freight other than their own to such ports shall be terminated.

9. That any action looking to a readjustment of the interior waterways service (Yukon River, etc.) be postponed until the completion of the Government railroad to Nenana, when a revision of such services will be imperative. Transportation charges on the Yukon and Tanana Rivers are high and the service on the lower Yukon inadequate, but no temporary measures of relief present themselves.

CONCENTRATION AND COORDINATION OF FEDERAL CONTROL.

Nearly all of Alaska's resources are directly or indirectly controlled by the Federal Government. About 99 per cent of the land is still in Government ownership. The development of coal and oil deposits is under Government leases. Water powers and fisheries are under Federal control and nearly all Alaska timber is in Government ownership.

The Federal control of Alaska's resources is vested in a number of bureaus and departments. Rules and regulations relating to Alaska affairs, under the existing statutes, must be made by Washington authorities, who are also in large measure directly charged with their execution. This long-distance administration has been a serious handicap to the development of Alaska. In many instances regulations have been made which did not meet the local requirements, and unjust decisions rendered because those making them were not familiar with local conditions. This situation has worked a particular hardship on the operator with small capital who could not afford to make the long journey to present his argument in person to the Washington authorities.

Owing to the divided authority and the limitations placed by statutes and appropriations, there has also been a lack of coordination between various Alaska Federal activities. For example, there are four different Federal

bureaus who have funds for construction of wagon roads in Alaska, in addition to the grants made by the Territorial government. So far as possible this situation has been met by cooperation between the several agencies involved. Again, the duty of enforcement of game laws is shared by the governor of Alaska and the Departments of Commerce and Agriculture. To improve these conditions the committee recommends that—

1. The passage of an act providing for an Alaska development board, located in Alaska, and authorized to administer the Federal laws relating to public lands, leases, water powers, fisheries, timber, railroad construction and operation, and wagon-road construction.

2. That the Alaska development board should not take over the purely investigative work in Alaska forming a part of the activities of the large Federal scientific organizations. This because such investigations as, for example, those of the Geological Survey, Coast Survey, Weather Bureau, and of other scientific bureaus can best and most economically be carried on by the existing agencies.

Mr. Sherman, representing the Department of Agriculture, refrained from joining in the above two recommendations. On May 24 the Secretary of Agriculture addressed a letter to the Departments of War, Interior, Labor, and Commerce, suggesting that any comprehensive legislation for the reorganization of the administration of national property and interests in Alaska should be based upon a joint consideration of the departments concerned. Since the matter is therefore under interdepartmental consideration at the request of the Department of Agriculture, Mr. Sherman did not feel authorized or qualified to give advice in the premises.

Pending the congressional authorization for an Alaska development board, and as a temporary expedient, the committee further recommends:

1. That an interdepartmental Alaska committee be organized, to be composed of representatives of all Government departments concerned in Alaska affairs. Also that the Governor of Alaska be made an ex officio member of this committee.

2. That an additional Assistant Secretary of the Interior Department be appointed, who shall be chairman of the committee and shall devote all his time to Alaska affairs.

3. That the chairman of the committee shall spend a large part of his time in Alaska and thus by personal contact become intimately acquainted with Alaska conditions.

WAGON ROADS AND TRAILS.

The committee finds that the construction of wagon roads and trails is one of the most important and urgent needs of Alaska. Without the construction of a large mileage of wagon roads and trails the resources of the Territory can not be made available. Nothing will contribute more to development of tonnage for the Government railroad than a system of tributary wagon roads. The committee recommends that—

1. A general system of main highways be planned to be constructed and maintained by the Federal Government.

2. The construction and maintenance of local roads and trails be left to the Territory.

3. The systems outlined in the above two recommendations include the construction of properly located trails, to be subsequently improved into wagon roads, into every new district where promising discoveries of minerals have been made.

4. A plan for coordination, so far as it has not already been done, of the various Federal road-building agencies be prepared by the proposed interdepartmental Alaska committee, with the advice of Federal officials resident in the Territory, as well as of the Territorial officials. That this matter be relegated to the Alaska development board as soon as it is organized.

5. In acting upon the foregoing recommendations the following road-building projects be given consideration:

(*a*) A wagon road from Alaska Railroad to the Kantishna mining district, to be connected with Mount McKinley National Park, and extended to McGrath, and to the Iditarod district.

(*b*) A wagon road from Alaska Railroad to the Valdez Creek placer district, to be subsequently connected with the Valdez-Fairbanks road.

(*c*) Trails, and eventually wagon roads, connecting the Alaska Railroad with the copper deposits of the Talkeetna and other near-by districts.

(*d*) A wagon road from the Alaska Railroad to the Yentna (Cache Creek) district to be later extended into the Kuskokwim Valley.

(*e*) A wagon road from the Copper River Railroad into Nizina placer district and its eventual extension into upper Chitina Valley.

(*f*) A wagon road from the Valdez-Fairbanks road to the Chistochina (Slate Creek) district to be later extended to Chisana district and eventually to the White River, and also a branch road connecting with the Fortymile road at the Tanana River.

(*g*) A wagon road from Fairbanks into Tolovana (Livengood) district later to be extended to the Yukon and connecting with the Koyukuk road.

(*h*) A wagon road from Fairbanks or Livengood to mouth of Tanana River to be extended along north side of Yukon River to Ruby.

(*i*) A wagon road from Fairbanks to Circle district.

(*j*) A wagon road from Yukon River into Koyukuk and Chandalar districts.

(*k*) The extension of Eagle-O'Brien Creek road into Fortymile district later to be built through to the Tanana River.

(*l*) The extension of Hot Springs wagon road to Rampart district.

(*m*) The extension of Ruby-Long Creek wagon road to McGrath.

(*n*) A wagon road from the north bank of Yukon at Ruby to Nome.

(*o*) A wagon road from Nome to Candle and Kiwalik.

(*p*) A wagon road from Iliamna Bay (Cook Inlet) to Iliamna Lake to be eventually extended to Lake Clark.

6. Congress be asked to make an annual appropriation of not less than $1,000.000 for the constructoin and maintenance of wagon roads and trails in Alaska.

MINING INDUSTRY.

The committee finds that there are large undeveloped mineral resources in Alaska; that the advance of the mining industry is dependent chiefly on (1) cheaper transportation, and (2) construction of wagon roads and trails, but that there is also need of investigations and reports on certain of its features. The committee recommends that—

1. The Bureau of Mines make a report on the feasibility of smelting Alaska copper ores within the Territory, this work to be done in cooperation with the Geological Survey so far as may be necessary.

2. The Bureau of Mines make an investigation and report on methods and costs of placer mining in Alaska. This to be specially directed toward the development of methods of exploiting the large bodies of auriferous gravels of low gold content.

The committee finds that the development of coal and oil fields is of first importance to the Territory. It therefore recommends that—

1. Every encouragement be given to coal and oil development, especially by making the terms of leases as liberal as the law allows.

2. The necessary underground explorations in the Matanuska coal field be prosecuted with vigor by the Government.

3. The companies engaged in prospecting the Bering River coal field be given every encouragement to develop coal and to the building of railroads necessary to its marketing.

4. The interdepartmental committee give immediate and earnest consideration to the desirability of the establishment of a coaling station for commercial and naval uses at a port in the Aleutian Islands most suitably located to serve trans-Pacific shipping and if possible the cannery industry of southwestern Alaska.

The committee furthermore recommends that Congress be asked:

1. To increase the appropriation for the investigation of the mineral resources of Alaska as being one of the most important steps to further mining development in the Territory and the development of tonnage for the railroad.

2. To modify the Alaska coal leasing law allowing a prospecting period of four years before a lease is signed.

The committee finds that while the Alaska petroleum leasing law is liberal for developed fields, for those where there are some surface indications of petroleum, and for those that are readily accessible, its terms do not encourage the search for oil in inaccessible wildcat territory. The committee believes, for example, that to induce capital to explore for oil in the Arctic coast region of Alaska, where there are some indications of its presence, a more generous law must be enacted. It recommends that this matter be taken under advisement and that appropriate legislation be asked for.

LUMBER AND WOOD PULP.

Wood pulp and print paper furnish one of the greatest immediate opportunities for the profitable employment of labor and capital in Alaska. The Forest Service estimates an ultimate possible annual production of about 2,000,000 cords of pulp wood from Alaska timber, yielding a newsprint product equal to one-third of our present annual consumption. The Tongass National Forest (southeastern Alaska) affords the best opportunity for immediate development, and the committee is informed that one bid for 100,000,000 feet of pulp timber in this district has been received. To encourage and hasten the development of Alaska timber lands the committee recommends that—

1. An intensive campaign be made for the development of Alaska pulp wood by laying before the pulp and paper manufacturers and consumers the possibilities of the immediate development of an industry in the Territory.
2. The surveys of the pulp-wood timber and water powers of the coast region be extended.
3. A reconnaissance be made by the Forest Service of timber resources of the interior, especially with a view of determining whether they have value for pulp.
4. The export of birch and Sitka spruce timber be encouraged in every way.
5. The Forest Service investigate the possibilities of reforestation of the burnt-over lands of the interior of Alaska.

WATER POWER.

The committee finds that there are extensive water powers in Alaska; that the exact information about them is exceedingly meager. These water powers are important to the development of the mining, cannery, and pulp-wood industries. The only investigations made of the water power are carried on by small allotments made from the appropriations for the investigations of the mineral resources of Alaska, thereby decreasing the funds available for other important surveys of mineral wealth.

The committee therefore recommends that Congress be asked for an appropriation of $40,000 to investigate the water resources of Alaska with reference to their use to mining, wood pulp, and other industries.

FISHERIES.

The data collected by the committee relating to the fisheries clearly indicate that there is urgent need of legislation to protect the salmon industry of Alaska so as to prevent the depletion of the fisheries. Also that the halibut fisheries of Alaska and adjacent international waters are seriously threatened with exhaustion unless steps be taken looking to their conservation.

The committee therefore indorses the general plans of the Department of Commerce looking to the conservation of the salmon and halibut fisheries.

The facts in hand indicate the necessity of an extension of the investigations of the commercial fisheries of Alaska, notably along Alaska Peninsula, Aleutian Islands, and in Bering Sea. The committee recommends that these investigations be vigorously advanced by the Bureau of Fisheries and that additional appropriations be asked for if needed to carry out this plan.

AGRICULTURE AND GRAZING.

The committee finds that there are in Alaska (*a*) large areas of farming land, (*b*) some stock ranges, and (*c*) extensive reindeer pastures; also that the most promising present field for homesteaders is the region tributary to the Alaska Railroad. The committee recommends that—

1. The Department of Agriculture appoint a subagent, qualified by Alaska experience, to be in charge of agricultural investigations in the Susitna, Tanana, and Yukon Valleys, who is to have general supervision of the Matanuska and Fairbanks stations, and to be provided with the necessary assistants and facilities so that he may carry on personal investigations (1) of the needs of the homesteaders and (2) of the undeveloped agricultural resources of inland Alaska; also that he work in close cooperation with the land and industrial department of the Alaskan Engineering Commission.
2. The Agricultural Department make an investigation and report on the commercial possibilities of developing a sugar-beet industry in Alaska, and, if this be practical, present a plan for bringing this about.

3. The Agricultural Department make an investigation of the commercial possibilities of stock raising on the Alaska Peninsula and on Kodiak and other islands of southwestern Alaska, and, if this be practical, recommend means by which such an industry can be developed.

4. All Alaska ocean, river, and land transportation lines be requested to grant special passenger rates to farm settlers and special freight rates on household goods, farm implements, breeding stock, and fertilizer for use of farm settlers.

5. The subdivisional surveys be extended by the General Land Office over Alaska farming lands likely soon to be homesteaded; the Department of Agriculture be requested to designate the lands which should be covered by such surveys; and pending the extension of the regular surveys the General Land Office make the surveys of individual homesteads as rapidly as possible.

6. Mr. W. T. Lopp, of Bureau of Education, make a report on the possibilities of Alaska reindeer industry, together with a detailed plan for its development.

7. Steps be taken to transfer Government or native reindeer herds to Broad Pass region and thus make them tributary to the railroad.

8. The reorganization of the ocean transportation to provide material increase of cold-storage capacity on vessels running to Alaska ports to meet the developments of the reindeer industry as well as that of frozen fish.

The committee further recommends that the following legislation be asked for:

1. An extension of the farmer's loan act to Alaska.

2. An extension of the stock-raising homestead act to Alaska, modified to meet the conditions in the Territory.

PUBLICITY.

The committee finds need for intelligent publicity for Alaska, and recommends that—

1. This should take the form of placing before the business interests of the country the possibilities of the industrial development of the Territory. To bring this about studies of the various possible industries, such as have been recommended above, should be made, and statements prepared covering the elements entering into such development.

2. No effort should be made to bring to Alaska permanent residents beyond the capacity of the industrial development to maintain them.

3. A publicity campaign should be directed to the attraction of tourists and pleasure seekers to Alaska.

4. The work of the Territorial publicity bureau, the land and industrial department of the Alaskan Engineering Commission, and the various Federal bureaus engaged in advertising Alaska, and, so far as possible, that of private agencies, such as the Seattle and the several Alaska chambers of commerce, should be coordinated.

NAVIGATION.

The committee finds that only about 9 per cent of Alaska's ocean waterways have been charted, and that there is a great lack of lighthouses and other aids to navigation. These conditions are one of the contributing elements to the high operating costs of Alaska steamers. The committee has received a number of specific recommendations for installation of aids to navigation. In most instances, however, the information is not sufficiently complete to justify the indorsement of such projects. The committee, however, feels justified in recommending that—

1. A lighthouse be built at Cape Spencer, near Icy Strait.

2. Aids to navigation be placed at the entrance to the Kuskokwim River.

The committee further recommends that Congress be asked to give increased appropriation for the charting of Alaska coast line, and for aids to navigation.

KUSKOKWIM REGION.

Certain needs of the Kuskokwim Valley, whose fishing and mineral resources are now attracting attention, have been laid before the committee. In view of the lack of complete information about this region the committee hesitates to make definite recommendations. The following matters are, however, called to the attention of the interdepartmental committee for its earnest consideration:

1. By the existing statutes the Kuskokwim Basin now lies in three different judicial districts, and it has been pointed out that this makes the enforcement of law both difficult and expensive. It has been recommended to the committee that the Kuskokwim Basin be placed in the second judicial district by a change of boundaries. (See Nelson bill, S. 4205, Apr. 12, 1920.)

2. It has been represented to the committee that there is only one deputy marshal in the entire Kuskokwim Basin. It has been recommended to the committee that a second marshal should be provided for this region.

3. It has been represented to the committee that commercial fishing at the mouth of the Kuskokwim River would deplete the salmon run to the detriment of the natives and whites living on the upper river, and therefore that such fishing should be curtailed or prohibited. An investigation of this matter by the Bureau of Fisheries would appear to be justified.

4. The best route of approach to the lower Kuskokwim Valley, from the Yukon River, is by the "Portage Trail." This crosses a swampy lowland, about 25 miles wide, connecting the valleys of the two rivers. The lowland is traversed by many streams and dotted by numerous lakes. Travel is by boats along the streams and lakes, and by swampy trails connecting the waterways. Mail is carried over this route and there is considerable other travel. It has been suggested that the route could be improved at no great expense and thus give better access to the lower Kuskokwim Valley.

MAIL SERVICE.

The Post Office Department has furnished the committee with the following statements with reference to the Alaska mail service:

"In 1916 there were 51 mail routes in the interior of Alaska, while in 1920 the number increased to 55. The number of steamboat routes from Seattle to Alaska ports was 28 in 1916 and the same in 1920, but the number of dispatches of mail from Seattle to 8 principal ports in Alaska was 40 to 50 per cent less in 1919 than in 1916, showing a great decrease in actual sailings from Seattle to Alaska in 1919 over 1916. Mail is sent from Seattle to Alaska on every available sailing that will expedite its delivery.

"Under the reduced opportunities to send the mail to Alaska the Post Office Department succeeded in 1919 in making 9 dispatches per month during the summer to Ketchikan, Juneau, and Skagway; 6 each to Petersburg, Cordova, Valdez, and Seward; and, during the winter of 1919, 7 trips per month each to Ketchikan and Juneau; 6 to Seward; 5 to Cordova and Valdez; 4 to Wrangell and Petersburg; and 1 to Skagway.

"The Post Office Department advises that it is necessary to maintain regular sailings, with fixed ports of call, to give Alaska a mail service commensurate with its commercial needs, and, for such service, the department has always paid a rate for carrying the mails far in excess of the rates for freight and express matter.

"Since July 1, 1918, the department has not been able to induce either of the two steamship companies operating to Aslaka to make a bid for carrying the mail to stated ports of call and on a fixed number of sailings. One of the companies refused to bid for the service to cover stated points and the other company refused to bid on a contract on a fixed number of sailings. Each company prior to July 1, 1918, had made such contracts."

The committee has received many general criticisms of the Alaska mail service and a number of definite recommendations for the modification of existing mail routes.

The committee believes that the improvement of ocean transportation herein recommended will make it possible to so improve the mail service as to meet all the general criticism. The information and time available to the committee are insufficient to justify specific recommendations in regard to mail routes. The committee recommends that—

1. In connection with the revision of the transportation system suggested in this report, a rearrangement of the ocean mail routes be provided, to the end that more frequent and more extensive service be given Alaska.

2. The Post Office Department confer with the interdepartmental Alaska committee for recommendations in the selection of the most feasible routes to meet the needs of the inland communities.

Respectfully submitted.

ALFRED H. BROOKS,
Chairman, Department of the Interior.
H. Y. SAINT,
Shipping Board.
OTTO PRAEGER,
Second Assistant Postmaster General.
E. A. SHERMAN,
Department of Agriculture.

WASHINGTON, D. C., *June 11, 1920.*

Appendix I.

Laws Relating to Alaska, Passed at the First and Second Session of the Sixty-Sixth Congress.

[Public—No. 59—66th Congress.]

[H. R. 7417.]

AN ACT To amend an Act of Congress approved March 12, 1914, authorizing the President of the United States to locate, construct, and operate railroads in the Territory of Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "An Act to authorize the President of the United States to locate, construct, and operate railroads in the Territory of Alaska, and for other purposes," be amended by inserting at the conclusion of section 2 the following:

"*Provided*, That in order to complete on or before December 31, 1922, the construction and equipment of the railroad between Seward and Fairbanks, together with necessary sidings, spurs, and lateral branches, the additional sum of $17,000,000 is hereby authorized to be appropriated, to be immediately and continuously available until expended."

Received by the President, October 7, 1919.

[Note by the Department of State.—The foregoing act having been presented to the President of the United States for his approval, and not having been returned by him to the house of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

[Public Resolution—No. 20—66th Congress.]

[H. J. Res. 241.]

JOINT RESOLUTION To suspend the requirements of annual assessment work on mining claims during the year 1919.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the provision of section 2324 of the Revised Statutes of the United States, which requires on each mining claim located and until a patent has been issued therefor, not less than $100 worth of labor to be performed, or improvements aggregating such amount to be made each year, be, and the same is hereby suspended as to all mining claims in the United States, including Alaska, during the calendar year 1919: *Provided*, That every claimant of any such mining claim in order to obtain the benefits of this resolution shall file or cause to be filed in the office where the location notice or certificate is recorded on or before December 31, 1919, a notice of his desire to hold said mining claim under this resolution.

Approved, November 13, 1919.

[Public—No 132—66th Congress.]

[H. R. 8953.]

AN ACT To authorize the incorporated town of Ketchikan, Alaska, to issue bonds for the construction and equipment of schools therein, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the incorporated town of Ketchikan, Alaska, is hereby authorized and empowered to issue its bonds in any sum not exceeding $100,000 for the purpose of constructing a schoolhouse in said town and equipping the same.

Sec. 2. That before said bonds shall be issued a special election shall be ordered by the common council of the town of Ketchikan, at which election the question of whether such bonds shall be issued shall be submitted to the qualified electors of said town of Ketchikan. Thirty days' notice of any such election shall be given by publication thereof in a newspaper printed and pub-

lished and of general circulation in said town before the day fixed for such election.

SEC. 3. That the registration for such election, the manner of conducting the same, and the canvass of the returns of said election shall be, as nearly as practicable, in accordance with the requirements of law in general or special elections in said municipality, and said bonds shall be issued only upon the condition that a majority of the votes cast at such election in said town shall be in favor of issuing said bonds.

SEC. 4. That the bonds above specified, when authorized to be issued as hereinbefore provided, shall bear interest at a rate not to exceed 6 per centum per annum, payable annually, and shall not be sold for less than their par value with accrued interest, and shall be in denominations not exceeding $1,000 each, the principal to be due in fifteen years from the date thereof: *Provided, however*, That the common council of the said town of Ketchikan may reserve the right to pay off said bonds in their numerical order at the rate of $10,000 or less thereof per annum at any interest period: *Provided further*, That on all bonds paid off the first year after date there shall be paid a premium of 2½ per centum, on all bonds paid off the second year a premium of 2 per centum, on all bonds paid off the third year a premium of 1½ per centum, and on all bonds paid off the fourth year a premium of 1 per centum besides interest. Principal and interest shall be paid in lawful money of the United States of America, at the office of the town treasurer of the town of Ketchikan, Alaska, or at such other place as may be designated by the common council of the town of Ketchikan; the place of payment to be mentioned in said bonds: *And provided further*, That each and every such bond shall have the written signature of the mayor and clerk of said town of Ketchikan, and also bear the seal of said town.

SEC. 5. That no part of the funds arising from the sale of said bonds shall be used for any purpose other than that specified in this Act. Said bonds shall be sold only in such amounts as the common council shall direct, and the proceeds thereof shall be disbursed by the school board of such town under the limitations hereinbefore imposed and under the direction of said common council from time to time as the same may be required for the purposes aforesaid.

Approved, February 7, 1920.

[PUBLIC—No. 142—66TH CONGRESS.]

[H. R. 10746.]

AN ACT To authorize the incorporated town of Wrangell, Alaska, to issue bonds for the construction, enlargement, and equipment of schools, the acquisition and construction of a water-supply system, the construction of a sewer system, the construction of a city dock and floating dock, and to levy and collect a special tax therefor.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the incorporated town of Wrangell, Alaska, is hereby authorized and empowered to issue its bonds in any sum, not exceeding $80,000, for the purpose of enlarging its public schoolhouse and constructing and equipping public schools, for the acquisition and construction of a water-supply system, for the construction of a sewer system, and for the construction of a city dock and also a floating dock.

SEC. 2. That before said bonds shall be issued a special election shall be ordered by the common council of the town of Wrangell, at which election the question of whether such bonds shall be issued shall be submitted to the qualified electors of said town of Wrangell. Notice of any such election shall be given by publication thereof once a week for four consecutive weeks prior to such election in a newspaper printed and published and of general circulation in said town.

SEC. 3. That the registration for such election, the manner of conducting the same, and the canvass of the returns of said election shall be, as nearly as practicable, in accordance with the requirements of law in general or special elections in said municipality, and said bonds shall be issued only upon the condition that a majority of the votes cast at such election in said town shall be in favor of issuing said bonds.

SEC. 4. That the bonds above specified, when authorized to be issued as hereinbefore provided, shall bear interest at a rate not to exceed 6 per centum per annum, payable annually, and shall be sold for not less than their par value, with accrued interest, and shall be in denominations not exceeding $1,000 each,

the principal to be due is twenty years from the date thereof: *Provided, however,* That the common council of the town of Wrangell may reserve the right to pay off said bonds in their numerical order at the rate of $10,000 or less thereof per annum at any interest period: *Provided further,* That on all bonds paid off the first year after date there shall be paid a premium of 2½ per centum, besides interest, on all bonds paid off the second year a premium of 2 per centum, besides interest, on all bonds paid off the third year a premium of 1½ per centum, besides interest, and on all bonds paid off the fourth year a premium of 1 per centum besides interest. Principal and interest shall be paid in lawful money of the United States of America at the office of the town treasurer of the town of Wrangell, Alaska, or at such other place as may be designated by the common council of said town of Wrangell, the place of payment to be mentioned in said bonds: *And provided further,* That each and every bond shall have the written signature of the mayor and clerk of said town of Wrangell and also bear the seal of said town.

SEC. 5. That no part of the funds arising from the sale of said bonds shall be used for any other purpose than that specified in this Act. Said bonds shall be sold only in such amounts as the common council shall direct, and the proceeds thereof shall be disbursed for the purposes herein mentioned and under the order and direction of said common council from time to time as the same may be required for said purposes: *Provided,* That not to exceed $15,000 of the proceeds of the sale of said bonds shall be expended for the construction, enlargement, and equipment of public schools; not to exceed $25,000 thereof shall be expended for the acquisition and construction of a water-supply system; not to exceed $15,000 thereof shall be expended for the construction of a sewer system; and not to exceed $20,000 thereof shall be expended for the construction of a city dock; and not to exceed $5,000 thereof shall be expended for the construction of a floating dock.

SEC. 6. That said town of Wrangell is hereby authorized annually to assess, levy, and collect a special tax, not to exceed 2 per centum of the assessed valuation, upon all the real and personal property situated in said town, and to enforce the collection of the same as other taxes, to provide for the payment of said bonds; such tax, if levied and collected, shall be used exclusively for such purpose, and may be administered as a sinking fund therefor.

Approved, February 17, 1920.

[PUBLIC—No. 146—66TH CONGRESS.]

[Excerpt from "An act to promote the mining of coal, phosphate, oil, oil shale, gas, and sodium on the public domain," approved, February 25, 1920.]

* * * * * * *

ALASKA OIL PROVISO.

SEC. 22. That any bona fide occupant or claimant of oil or gas bearing lands in the Territory of Alaska, who, or whose predecessors in interest, prior to withdrawal had complied otherwise with the requirements of the mining laws, but had made no discovery of oil or gas in wells and who prior to withdrawal had made substantial improvements for the discovery of oil or gas on or for each location or had prior to the passage of this Act expended not less than $250 in improvements on or for each location shall be entitled, upon relinquishment or surrender to the United States within one year from the date of this Act, or within six months after final denial or withdrawal of application for patent, to a prospecting permit or permits, lease or leases, under this Act covering such lands, not exceeding five permits or leases in number and not exceeding an aggregate of one thousand two hundred and eighty acres in each: *Provided,* That leases in Alaska under this Act whether as a result of prospecting permits or otherwise shall be upon such rental and royalties as shall be fixed by the Secretary of the Interior and specified in the lease, and be subject to readjustment at the end of each twenty-year period of the lease: *Provided further,* That for the purpose of encouraging the production of petroleum products in Alaska the Secretary may, in his discretion, waive the payment of any rental or royalty not exceeding the first five years of any lease.

No claimant for a lease who has been guilty of any fraud or who had knowledge or reasonable grounds to know of any fraud, or who has not acted honestly and in good faith, shall be entitled to any of the benefits of this section.

[PUBLIC—No. 234—66TH CONGRESS.]

[Excerpt from "An act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1921," approved May 31, 1920 (41 Stat., 716).]

* * * * * * *

For investigations, experiments, and demonstrations for the welfare, improvement, and increase of the reindeer industry in Alaska, including the erection of necessary buildings and other structures and cooperation with the Bureau of Education, and for the enforcement of section 1956 of the Revised Statutes as amended so far as it relates to the protection of land fur-bearing animals in Alaska, including necessary investigations in connection therewith, $40,000; and hereafter the powers and duties heretofore conferred upon the Secretary of Commerce by existing law, proclamations, or Executive orders with respect to any mink, marten, beaver, land otter, muskrat, fox, wolf, wolverine, weasel, or other land fur-bearing animals in Alaska, and with respect to the leasing of certain islands in Alaska for the propagation of fur-bearing animals, are hereby conferred upon, and shall be exercised by, the Secretary of Agriculture, and the powers and duties conferred upon the Secretary of Agriculture by existing law, with respect to walruses and sea lions, are hereby conferred upon, and shall be exercised by, the Secretary of Commerce: *Provided*, That nothing in this act shall affect the powers and duties conferred upon the Secretary of Commerce by existing law, proclamations, or Executive orders with respect to fur seals and sea otters, and jurisdiction over the Pribiloff Islands and the fur-bearing animals thereon; and hereafter the wardens and other officers heretofore or hereafter appointed by the Secretary of Agriculture for the protection of bird reservations in Alaska under control of the Department of Agriculture, or for the protection of fur-bearing animals in Alaska, shall have and exercise like authority and powers in the performance of their respective duties as are conferred upon game wardens by the Alaska game law of May 11, 1908 (Thirty-fifth Statutes at Large, page 102), and by existing law upon officers and agents of the Department of Commerce employed in the salmon fisheries and fur-seal and sea-otter services in Alaska.

[PUBLIC—No. 276—66TH CONGRESS.]

[H. R. 10806.]

AN ACT To provide for the abolition of the eighty-rod reserved shore spaces between claims on shore waters in Alaska.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the provisions of the Act of May 14, 1898 (Thirtieth Statutes at Large, page 409), extending the homestead laws to Alaska, and of the Act of March 3, 1903 (Thirty-second Statutes at Large, page 1028), amendatory thereof, in so far as they reserve from sale and entry a space of at least eighty rods in width between tracts sold or entered under the provisions thereof along the shore of any navigable water, and provide that no entry shall be allowed extending more than one hundred and sixty rods along the shore of any navigable water, shall not apply to lands classified and listed by the Secretary of Agriculture for entry under the Act of June 11, 1906 (Thirty-fourth Statutes, page 233), and that the Secretary of the Interior may upon application to enter or otherwise in his discretion restore to entry and disposition such reserved spaces and may waive the restriction that no entry shall be allowed extending more than one hundred and sixty rods along the shore of any navigable water as to such lands as he shall determine are not necessary for harborage uses and purposes.

Approved, June 5, 1920.

[PUBLIC—No. 255—66TH CONGRESS.]

[S. 4286.]

AN ACT To amend an Act entitled "An Act to authorize the incorporated town of Petersburg, Alaska, to issue bonds in any sum not exceeding $75,000 for the purpose of constructing and installing a municipal electric light and power plant and for the construction of a public-school building," approved September 29, 1919.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 1 of the Act entitled "An Act to authorize the incorporated town of Petersburg, Alaska, to issue bonds in

any sum not exceeding $75,000 for the purpose of constructing and installing a municipal electric light and power plant and for the construction of a public-school building," be, and the same is hereby, amended to read as follows:

"SECTION 1. That the incorporated town of Petersburg, Alaska, is hereby authorized and empowered to issue bonds in any sum not exceeding $150,000 for the purpose of constructing and installing a municipal electric light and power plant and for the construction of a public-school building."

SEC. 2. That section 5 of the Act mentioned in the preceding section is hereby amended to read as follows:

"SEC. 5. That no part of the funds arising from the sale of said bonds shall be used for any purpose other than specified in this Act. Said bonds shall be sold only in such amounts as the common council shall direct, and the proceeds thereof shall be disbursed for the purposes hereinbefore mentioned and under the order and direction of said common council from time to time as the same may be required for said purposes: *Provided*, That not to exceed $115,000 of the proceeds of the sale of said bonds shall be expended for the construction and installation of the electric light and power plant, and not to exceed $35,000 thereof shall be expended for the construction of the public-school building."

Approved, June 5, 1920.

[PUBLIC—No. 246—66TH CONGRESS.]

[H. R. 13870.]

Excerpt from an act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1921, and for other purposes, approved June 5, 1920.

* * * * * * *

TERRITORY OF ALASKA.

Alaskan Engineering Commission: For carrying out the provisions of the Act entitled "An Act to authorize the President of the United States to locate, construct, and operate railroads in the Territory of Alaska, and for other purposes," approved March 12, 1914, as amended, including expenses incident to conducting hearings and examining estimates for appropriations in Alaska, and including a plant for cleaning coal, $7,000,000, to continue available until expended.

Authority is granted to purchase during the fiscal year 1921, from the appropriation made for the construction and operation of railroads in Alaska, articles and supplies for sale to employees and contractors, the appropriation to be reimbursed by the proceeds of such sales.

During the fiscal year 1921 there shall be covered into the appropriation established from time to time under the Act entitled "An Act to authorize the President of the United States to locate, construct, and operate railroads in the Territory of Alaska, and for other purposes," approved March 12, 1914, as amended, the proceeds of the sale of material utilized for temporary work and structures in connection with the operations under said Act, as well as the sales of all other condemned property which has been purchased or constructed under the provisions thereof, also any moneys refunded in connection with the construction and operations under said Act, and a report hereunder shall be made to Congress at the beginning of its next session.

Insane of Alaska: For care and custody of persons legally adjudged insane in Alaska, including transportation and other expenses, $120,630: *Provided*, That authority is granted to the Secretary of the Interior to pay from this appropriation to the Sanitarium Company of Portland, Oregon, not to exceed $540 per capita per annum for the care and maintenance of Alaskan insane patients during the fiscal year 1921.

Education in Alaska: To enable the Secretary of the Interior, in his discretion and under his direction, to provide for the education and support of the Eskimos, Aleuts, Indians, and other natives of Alaska; erection, repair, and rental of school buildings; textbooks and industrial apparatus; pay and necessary traveling expenses of superintendents, teachers, physicians, and other employees; and all other necessary miscellaneous expenses which are not included under the above special heads, $275,000: *Provided*, That no person employed hereunder as special agent or inspector, or to perform any special or unusual duty

in connection herewith, shall receive as compensation exceeding $200 per month, in addition to actual traveling expenses and per diem not exceeding $4 in lieu of subsistence, when absent on duty from his designated and actual post of duty: *Provided further*, That of said sum not exceeding $7,000 may be expended for personal services in the District of Columbia.

All expenditures of money appropriated herein for school purposes in Alaska for schools other than those for the education of white children under the jurisdiction of the governor thereof shall be under the supervision and direction of the Commissioner of Education and in conformity with such conditions, rules, and regulations as to conduct and methods of instruction and expenditures of money as may from time to time be recommended by him and approved by the Secretary of the Interior.

Medical relief in Alaska: To enable the Secretary of the Interior, in his discretion and under his direction, with the advice and cooperation of the Public Health Service, to provide for the medical and sanitary relief of the Eskimos, Aleuts, Indians, and other natives of Alaska; erection, purchase, repair, rental, and equipment of hospital buildings; books and surgical apparatus; pay and necessary traveling expenses of physicians, nurses, and other employees, and all other necesary miscellaneous expenses which are not included under the above special heads, $90,000.

Patients who are not indigent may be admitted to the hospitals for care and treatment on the payment of such reasonable charges therefor as the Secretary of the Interior shall prescribe.

Reindeer for Alaska: For support of reindeer stations in Alaska and instruction of Alaskan natives in the care and management of reindeer, $6,400: *Provided*, That the Commissioner of Education is authorized to sell such of the male reindeer belonging to the Government as he may deem advisable and to use the proceeds in the purchase of female reindeer belonging to missions and in the distribution of reindeer to natives in those portions of Alaska in which reindeer have not yet been placed and which are adapted to the reindeer industry.

Protection of game in Alaska: For carrying out the Act approved May 11, 1908, entitled "An Act for the protection of game in Alaska, and for other purposes," including salaries, traveling expenses of game wardens, and all other necessary expenses, $25,000, to be expended under the direction of the Governor of Alaska.

Traffic in intoxicating liquors: For suppression of the traffic in intoxicating liquors among the natives of Alaska, to be expended under the direction of the Secretary of the Interior, $15,000.

Exportation of birch timber: Hereafter birch timber may be exported from Alaska.

Appendix J.

Government Publications on Alaska.

RECENT SURVEY PUBLICATIONS ON ALASKA.

[Arranged geographically. A complete list can be had on application.]

All these publications can be obtained or consulted in the following ways:

1. A limited number are delivered to the Director of the Survey, from whom they can be obtained free of charge (except certain maps) on application.

2. A certain number are delivered to Senators and Representatives in Congress for distribution.

3. Other copies are deposited with the Superintendent of Documents, Washington, D. C., from whom they can be had at prices slightly above cost. The publications marked with an asterisk (*) in this list are out of stock at the Survey, but can be purchased from the Superintendent of Documents at the prices stated.

4. Copies of all Government publications are furnished to the principal public libraries throughout the United States, where they can be consulted by those interested.

The maps whose price is stated are sold by the Geological Survey and not by the Superintendent of Documents. On an order amounting to $5 or more at the retail price a discount of 40 per cent is allowed.

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*The geography and geology of Alaska, a summary of existing knowledge, by A. H. Brooks, with a section on climate, by Cleveland Abbe, jr., and a topographic map and description thereof, by R. U. Goode. Professional Paper 45, 1906, 327 pp. No copies available. May be consulted at many public libraries.
*Placer mining in Alaska in 1904, by A. H. Brooks. In Bulletin 259, 1905, pp. 18–31. 15 cents.
The mining industry in 1905, by A. H. Brooks. In Bulletin 284, 1906, pp. 4–9.
*The mining industry in 1906, by A. H. Brooks. In Bulletin 314, 1907, pp. 19–39. 30 cents.
*The mining industry in 1907, by A. H. Brooks. In Bulletin 345, 1908, pp. 30–53. 45 cents.
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*The Alaskan mining industry in 1913, by A. H. Brooks. In Bulletin 592, 1914, pp. 45–74. 60 cents.
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*The future of gold placer mining in Alaska, by A. H. Brooks. In Bulletin 622, 1915, pp. 69–79.
*Tin resources of Alaska, by F. L. Hess. In Bulletin 520, 1912, pp. 89–92. 50 cents.
*The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp. 15 cents.
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*Methods and costs of gravel and placer mining in Alaska, by C. W. Purington. Bulletin 263, 1905, 362 pp. No copies available. (Abstract in Bulletin 259, 1905, pp. 32–46.)
*Prospecting and mining gold placers in Alaska, by J. P. Hutchins. In Bulletin 345, 1908, pp. 54–77. 45 cents.
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*Economic developments in southeastern Alaska, by F. E. and C. W. Wright. In Bulletin 259, 1905, pp. 47–68. 15 cents.
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*Lode mining in southeastern Alaska, 1907, by C. W. Wright. In Bulletin 345, 1908, pp. 78–97. 45 cents.
*The building stones and materials of southeastern Alaska, by C. W. Wright. In Bulletin 345, 1908, pp. 116–126. 45 cents.
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*Mining in southern Alaska, by C. W. Wright. In Bulletin 379, 1909, pp. 67–86. 50 cents.
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*Mining in southeastern Alaska, by Theodore Chapin. In Bulletin 642, 1916, pp. 73–104.
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*Geology of the central Copper River region, Alaska, by W. C. Mendelhall. Professional Paper 41, 1905, 133 pp. 50 cents.

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Controller Bay region (No. 601A); scale, 1:62,500; by E. G. Hamilton and W. R. Hill. 35 cents retail or 21 cents wholesale. Also published in *Bulletin 335. 70 cents.
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Fairbanks quadrangle (No. 642); scale, 1:250,000; by T. G. Gerdine, D. C. Witherspoon, R. B. Oliver, and J. W. Bagley. 50 cents retail or 30 cents wholesale. Also in *Bulletins 337 (25 cents) and 525.
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ALASKA

To accompany the Annual Report of the Governor, 1920

Scale $\frac{1}{5000000}$

Approximately 80 miles to 1 inch

50 0 50 100 150 200 Miles

50 0 50 100 150 200 Kilometers

Base map from U. S. Geological Survey

Military telegraph offices and radio from Signal Corps, U. S. Army

ARCTIC

Barrow · Pt. Barrow · Tangent Pt. · Peard Bay · Franklin Pt. · Wainwright Inlet · Icy Cape · Pt. Lay · Kukpowruk R. · Kokolik R. · Utukok R. · Ikpikpuk R. · Meade River · Ikpikpuk River · Chipp River · Smith Bay · Dease Inlet · Colville River

C. Lisburne · C. Sabine · Corwin Coalmine · Pt. Hope · C. Thompson · C. Seppings · Kukpuk R. · Corwin Lagoon · Wulik R. · Avalina R. · Etivluk R. · Chandler Lake · Cutler R. · Ambler R. · Reed R. · Alatna River · John River

NOATAK RIVER · BAIRD MOUNTAINS · KOBUK RIVER · ENDICOTT MOUNTAINS

KOBUK RIV. IND. RES. · Nulcargowik R. · Squirrel R. · Hunt R. · Kobuk R. · Shungnak · L. Selby · Pah Riv. · Hogatza River · Dulbi R. · Buttza R. · Hughes · Allakakat · Kanuti River · Selawik Lake · Selawik River · Husliia R. · Koyukuk River · Kateel R. · Dubbi R. · Koyukuk · Nulato · Wireless Sta. · Melozi · Louden · Ruby · Kokrines · Birches · Ft. Gibbon · Tozitna R. · Melozitna River · Chuitnana R. · Colville

Kivalina · Kotzebue · C. Krusenstern · C. Blossom · C. Espenberg · Shishmaref Inlet · Choris Pen. · Eschscholtz B. · CHAMISSO I. BIRD RES. · Kiwalik · Candle · Buckland R. · Goodhope Bay · Deering · Goodhope R. · Kugruk R. · Kiwalik R. · Kuzitrin R. · Shelton · Imuruk Basin · Salmon L. · Council · Solomon · Safety · Bluff · Golovnin · NORTON BAY · C. Denbigh · C. Darby · Reindeer Sta. · Rocky Pt. · Golovnin Bay · Besboro I. · Unalakleik R. · Unalaklik · Kaltag · Kaltag Slough · Khotol R. · Yukon River · Innoko · Ophir · McGrath · Takotna River · Tatlawiksuk R. · Georgetown · Swift R. · Stony Riv. · Holitna R. · Holokuk R. · Holitna Riv. · Mt. Spurr 11100 · Skwentna R. · Susitna R. · Tonzona R. · East Fork · South Fork · Mt. Dall 9000 · Mt. Russell 11500 · Kuskokwim River · Akiak R. · Kwiguk R. · Kwiklak R. · Kaselulik R. · Salmon R. · Tikchik L. · Tikchik · L. Kulik · Kakwok R. · L. Beverly · L. Nerka · L. Aleknagik · Wood R. · Nushagak · Mulchatna R. · Kakkul R. · Lake Clark · Iliamna Lake · Iliamna · Iliamna B. · Port Graham · Seldovia · Homer · Kachemak Bay · Angustine I. · Port Chatham · Shaw I. · C. Douglas · Barren Is. · Pt. Banks · Douglas · Chinitna B. · Anchor Pt. · Redoubt Pk. 10200 · Kalgin I. · Iliamna Pk. 10000 · Lake Clark · Kamishak Bay · Chugach Is. · Marmot B. · Kodiak · Kodiak B. · Afognak I. · Shuyak Strait · Sitkalidak I. · Tugidak I. · Trinity Is. · Semidi Is. · Chirikof I. · Mitrofania I. · Sutwik I. · Amalochak B. · Chignik Bay · Chignik · Chignik Lakes · Meshik R. · Seal Is. · Port Heiden · Ugashik · Ugashik Lakes · Ugashik R. · Becharof Lake · Becharof Lake · Kvichak R. · Naknek · Naknek L. · Etolin Pt. · Clarks Point · Pt. Constantine · Hagemeister I. · Togiak Bay · Togiak R. · Togiak I. · Goodnews R. · Goodnews Bay · Portage Bay · C. Newenham · Kuskokwim Bay · Bethel · Eek R. · Kuneklok R. · Kanektok R. · Kinak R. · Kuguklik R. · C. Avinof · C. Mendenhall · Nunivak I. · C. Corwin · C. Mohican · Nelson I. · Hazen Bay · Baird Inlet · C. Vancouver · C. Etolin · Black R. · Kashunuk River · Manopiknak River · Azun R. · Hooper Bay · Pt. Dall · C. Romanof · Scammon Bay · Andreafski · Marshall · Russian Mission · Holy Cross Wireless Sta. · Ikogmut · Ikogmut Wireless Sta. · MOUNTAIN VILL. RES. · YUKON DELTA BIRD RESERVATION · Kvichivak River · Anvik · Anvik R. · Georgetown · Ophir · McGrath · Takotna River · Tatlawiksuk R.

ARMY RADIO STATIONS

Brooks
Circle
Craig
Fairbanks
Ft. Egbert
Ft. Gibbon
Iditarod
Kotlik
Ft. Yukon
McGrath
Nome
Nulato
St. Michael
Wrangell
Holy Cross

NAVY RADIO STATIONS

Cordova
Dutch Harbor
Kodiak
Unalga
Sitka
St. George I.
St. Paul I.

COMMERCIAL RADIO STATIONS

Burnett Inlet
Chignik
Clarks Point
Idaho Inlet
Iditarod
Jualin
Juneau
Kake
Karluk
Ketchikan
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